This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

NYPL RESEARCH LIBRARIES
3 3433 08244487 2

3 HH
[illegible]

BHH

THE

GOLD COLONIES

OF

AUSTRALIA,

Their Hiſtory & Progreſs,

WITH
AMPLE DETAILS OF THE GOLD MINES,
HOW TO GET TO THEM,
AND EVERY ADVICE TO EMIGRANTS.

BY G. BUTLER EARP,
Editor of the “The Australian and New Zealand Gazette.”

THE FORTIETH THOUSAND.

With Illustrations of the Implements required in Gold Seeking, and the Chymical and Metallurgical Treatment of Gold Ore.

WITH A MAP.

LONDON:
. ROUTLEDGE & CO., FARRINGDON ST

ROUTLEDGE'S POPULAR LIBRARIES.

" Books to please the million must not only be good but attractive; not simply strengthen the constitution, but please, if not tickle and excite, the palate. When the masses go to ROUTLEDGE's they are at least sure of being gratified and pleased; they have still to acquire the same conviction in other quarters."—*The Times.*

ROUTLEDGE'S CHEAP SERIES.

" Books you may hold in your hand are the most useful after all."—*Dr. Johnson.*

" This valuable Series now contains upwards of 170 volumes. They form a complete library of instructive, useful, and entertaining knowledge. Each work is sold separately, at prices varying from One to Two Shillings, and many of them are illustrated. They are admirably adapted for all Mechanics' Institutes, Soldiers' and Sailors' Libraries, or Village Book Clubs, and for all kinds of popular instruction. They embrace the Works of our best authors in the various departments of Biography, History, Fiction, &c.: and Books that formerly cost *pounds* may now be obtained for *shillings.*

" No family ought to be without this Library, as it furnishes the readiest resources for that education which ought to accompany or succeed that of the boarding-school or academy, and it is infinitely more conducive than either to the cultivation of the intellect and the well-being of society."

Price 1*s.* each in Fancy Boards, except where specified.

CONTENTS OF THE SERIES—VIZ.:

1. **Wide, Wide World** (2*s.*). By Miss Wetherell.
5. **Nelson (Life of).** By James Allen.
6. **Wellington (Life of).** By Charles MacFarlane.
10. **Vicar of Wakefield and Poems.** By Oliver Goldsmith.
12. **Sir Robert Peel: His Life and Times.**
13. **The Arctic Regions** (1*s.* 6*d.*). By P. L. Simmonds.
14. **Queechy** (2*s.*). By Miss Wetherell.
19. **India.** With Illustrations (1*s.* 6*d.*). By J. H. Stocqueler.
22. **Rome and the Early Christians.** By W. Ware.
23. **Gold Colonies of Australia.** By G. B. Earp.
24. **New Zealand.** By G. B. Earp.
25. **What we did in Australia.** Edited by G. B. Earp.
34. **Two Years before the Mast** (1*s.* 6*d.*). By Dana.
35. **Representative Men.** By R. W. Emerson.
39. **Hyperion.** By Longfellow.
42. **Oliver Goldsmith's Life.** By Washington Irving.
44. **Lives of the Successors of Mahomet.** By Washington Irving.
46. **Nelson on Infidelity.** Edited by the Rev. G. A. Rogers.
47. **Russia as it is.** By J. R. Morell.
50. **Turkey: Past and Present.** By J. R. Morell.
57. **The Roving Englishman.**
63. **Hochelaga** (1*s.* 6*d.*). Edited by Eliot Warburton.

London: ROUTLEDGE, WARNES, AND ROUTLEDGE

65. **Sunny Memories of Foreign Lands** (1*s.* 6*d.*). By Mrs. Stowe.

70. **Shilling Cookery for the People.** By A. Soyer.

71, 72. **The History of the Reign of Ferdinand and Isabella** (2 vols. 4*s.*). By W. H. Prescott.

82, 83. **History of the Conquest of Mexico** (2 vols. 4*s.*). By W. H. Prescott.

85, 86. **The History of the Conquest of Peru** (2 vols. 4*s.*). By W. H. Prescott.

92. **Burmah and the Burmese.** By K. H. R. Mackenzie.

95. **The War; or, Voices from the Ranks.**

96. **The Pleasures, Objects, and Advantages of Literature.** By the Rev. R. A. Willmott.

97. **Biographical and Critical Essays** (2*s.*). By W. H. Prescott.

98. **Educational Lectures** (1*s.* 6*d.*) delivered at St. Martin's Hall.

100. **Turkey** (2*s.*). By the Roving Englishman.

101. **Transatlantic Wanderings.** By Captain Oldmixon.

104. **The Crimea and Odessa.** By C. W. Koch.

109. **America and the Americans** (1*s.* 6*d.*). By W. E. Baxter, Esq.

116. **My Brother's Keeper.** By Miss Wetherell.

120. **Sebastopol: the Story of its Fall.** By G. R. Emerson.

122. **Robinson Crusoe** (1*s.* 6*d.*). By Daniel Defoe.

130, 131. **History of Philip the Second of Spain** (2 vols. 4*s.*). By W. H. Prescott.

146. **English Traits.** By Emerson.

160, 161. **Charles the Fifth** (2 vols. 4*s.*). By Robertson and Prescott.

167. **Moss Side.** By M. Harland.

169. **The Mutiny in India, to Taking of Lucknow** (1*s.* 6*d.*).

170. **Parthenia; or, the last Days of Paganism** (1*s.* 6*d.*). By E. B. Lee.

173. **Robert Burns and Sir Walter Scott.** Two Lives (1*s.* 6*d.*). By Rev. James White.

174. **The Royal Princesses of England** (2*s.*). By Mrs. Matthew Hall.

178. **Aldershott and all About It** (2*s.*). Illustrated by Birket Foster.

179. **The Sepoy Revolt** (2*s.*). By Henry Mead.

180. **Wild Flowers, how to See and how to Gather them.** With 171 Plates (2*s.*).

182. **Rats** (with Anecdotes) (2*s.*). By Uncle James.

184. **Forest Life in Norway and Sweden** (2*s.*). By the Rev. H. Newland.

189. **Marvels of Science** (2*s.*). By Fullom, with Cuts.

190. **British Columbia and Vancouver's Island** (1*s.* 6*d.*). By Hazlitt.

193. **Derby Ministry (The)** (1*s.* 6*d.*). By Mark Rochester.

195. **Eminent Men and Popular Books** (2*s.*). (From the *Times.*)

196. **Prescott's Philip the Second,** Vol. 3 (2*s.*).

197. **Burns' Poetical Works** (2*s.*). Edited by Willmott.

ROUTLEDGE'S USEFUL LIBRARY.

In fcap. 8vo, price 1*s.* each, cloth limp, or boards, unless expressed.

The great dearth of Books of a thoroughly practical nature, suitable to the wants of that numerous class who really wish to become acquainted with common things, has induced the Publishers to commence the Useful Library.

1. A NEW LETTER WRITER, for the Use of Ladies and Gentlemen; embodying letters on the simplest matters of life, and on various subjects, with applications for Situations, &c.

2. HOME BOOK OF HOUSEHOLD ECONOMY; or, Domestic Hints for Persons of Moderate Income. Containing useful directions for the proper Labours of the Kitchen, the House, the Laundry, and the Dairy.

3. LANDMARKS OF THE HISTORY OF ENGLAND. By the Rev. JAMES WHITE, Author of "The Eighteen Christian Centuries." 1*s.* 6*d.*

4. LANDMARKS OF THE HISTORY OF GREECE. By the Rev. JAMES WHITE, Author of "The Landmarks of England." 1*s.* 6*d.*

5. COMMON THINGS OF EVERY-DAY LIFE. A Home Book for Mothers and Daughters. By ANNE BOWMAN.

GENERAL CONTENTS:—Household Economy and the Duties of a Wife and Mother—the Laundry—the Nursery—Health, and the Means to Preserve it—Management of Simple Disorders—Clothes: how to Wear, Make, and Pack them—and last, not least, Home Education.

6. THINGS WORTH KNOWING. By MARTIN DOYLE, Author of "Rural Economy," "Small Farms," &c., &c.

GENERAL CONTENTS:—Information upon Home Employment—Food: Meat—Bread—Hunger and Thirst—Water—Fermented Liquors—Habitations—Bodily Exercise—Sports—Walking—Swimming—Tea—Coffee—Sugar—Soap—Indian Corn—The Weather—Minerals—Medals—Gold—Silver—Mining—Money—Glass, &c.—The Use and Abuse of, and the Culture of, Tobacco and Snuff.

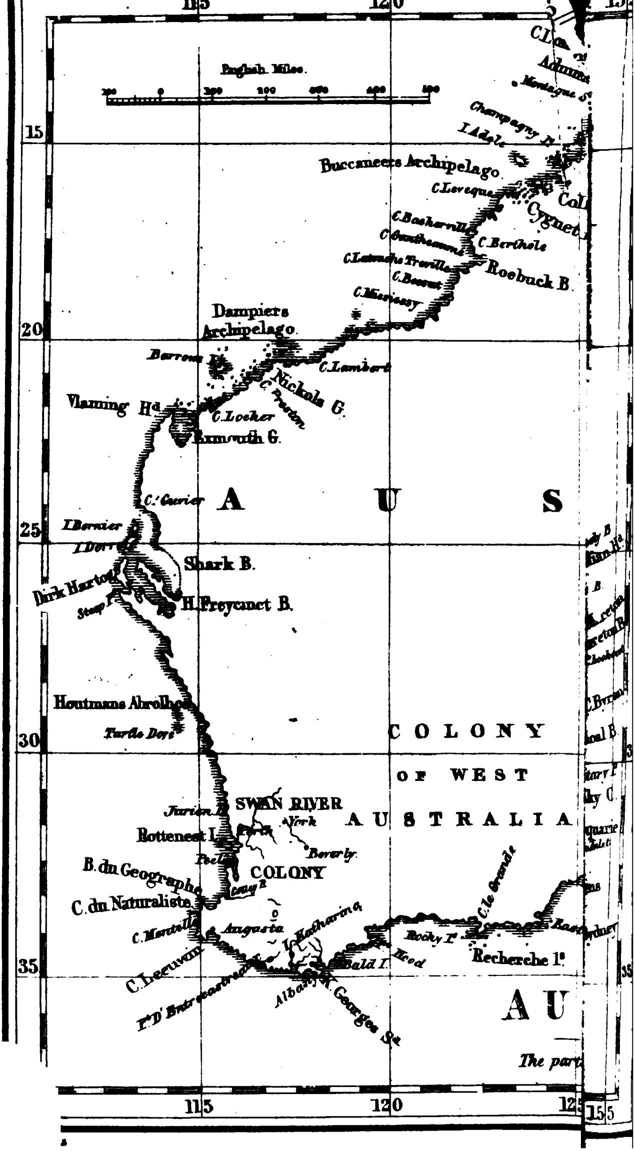
7. LAW OF LANDLORD AND TENANT (The), with a copious Collection of Useful Forms. By W. A. HOLDSWORTH, Esq. (of Gray's Inn), Barrister-at-Law.

8. LIVES OF GOOD SERVANTS. By the Author of "MARY POWELL."

9. HISTORY OF FRANCE, FROM THE CONQUEST OF GAUL, BY THE ROMANS, TO THE PEACE OF PARIS, 1856. By AMELIA B. EDWARDS.

10. THE LAW OF WILLS, EXECUTORS, AND ADMINISTRATORS, with a Copious Collection of Forms. By W. A. HOLDSWORTH, Esq. (of Gray's Inn), Barrister-at-Law.

London: ROUTLEDGE, WARNES, AND ROUTLEDGE.


115
120
English Miles.
0
100
200
300
400
500
15
20
25
30
35
C. Londonderry
Admiralty
Montague Sd
Champagny I.
I. Adele
Buccaneers Archipelago
C. Leveque
Collier
Cygnet B.
C. Baskerville
C. Bertholet
C. Latouche Treville
Roebuck B.
C. Bossut
C. Missiessy
Dampiers Archipelago
Barrow I.
C. Lambert
Nickols G.
C. Preston
Vlaming Hd.
C. Locker
Exmouth G.
C. Cuvier
A U S
I. Bernier
I. Dorre
Shark B.
Dirk Hartog
Steep Pt.
H. Freycinet B.
Houtmans Abrolhos
Turtle Dove
C O L O N Y
O F W E S T
A U S T R A L I A
Jurien B.
SWAN RIVER
York
Rottenest I.
Perth
Beverly
Peel
B. du Geographe
COLONY
C. du Naturaliste
C. le Grande
C. Mentelle
Augusta
K. Katharina
Rocky I.
C. Leeuwin
Bald I.
Mondrain I.
Recherche Is.
Pt. D'Entrecasteaux
Albany
K. Georges Sd.
A U
The part
Esperance B.
115
120
125
155

Australian De[illegible]ption [illegible]

THE

GOLD COLONIES OF AUSTRALIA,

AND

GOLD SEEKER'S MANUAL.

A NEW EDITION,

WITH ILLUSTRATIONS OF THE IMPLEMENTS REQUIRED IN THE SEARCH
FOR THE GOLD ORE, AS WELL AS THE PROGRESS OF THE
GOLD MINING TO THE LATEST PERIOD, AND AMPLE
NOTICES OF AUSTRALIAN GOLD GEOLOGY
AND MINERALOGY;

WITH THE

CHEMICAL AND METALLURGICAL TREATMENT OF
GOLD ORE.

BY G. BUTLER EARP,
FORMERLY MEMBER OF THE LEGISLATIVE COUNCIL OF NEW ZEALAND; AUTHOR OF
"HANDBOOK TO NEW ZEALAND," ETC.

With a Map.

THE FORTIETH THOUSAND.

LONDON:
GEORGE ROUTLEDGE & CO., FARRINGDON STREET.
1853.

London :
Printed by Stewart and Murray,
Old Bailey.

PREFACE.

THE primary object of the present volume is to give to the general reader and intending emigrant a complete account of the Gold Fields of Australia; their rise, progress, and present condition. The second object, to afford him as complete an insight into the country in which this extraordinary discovery has been made. To supply him, in short, with a larger mass of practical information relative to the gold colonies of Australia than has ever before been brought within so moderate a compass and price.

The mode of conveying this information will be to give to the reader, in the fewest words possible, a just and general idea of the gold colonies, leaving him to infer what are his chances of success if he emigrate to them. The ideas prevalent in England with reference to these are vague in the extreme, and the emigrant has been but little aided in the endeavour to render them otherwise, either by books written by colonists, which are for the most part nothing more than essays on crotchets of their own, or by books professedly written for the promotion of emigration, in which all kinds of high-coloured statements are set forth, either from ignorance or intention. The author's plan is to lay the country before his reader as it is,—to shew him that it is a country resembling England in all but climate and poverty,—mapped out into counties and districts similar to those of the mother-country, these being to a considerable extent already occupied; that its constitution is completely British, as is also its society; so that, in place of emigrating to unknown lands, only to encounter all sorts difficulties, as is generally believed, the emigrant is merely shifting his quarters from one portion of the British empire to another, and that the most prosperous portion;—from a division of the empire where he must beg of his brother man permission to labour for very inadequate hire, to another division where his brother man will beg of him to labour at an ample rate of remuneration, and where his labour will inevitably lead, and that in a brief space of time, if accompanied by prudence and intelligence, to an easy independence;—not perhaps the independence of great fortune, but the independence of easy circumstances, which will place him beyond caring for the patronage or the favour of any around him, instead of the humiliating subservience to which he is often compelled to stoop whilst at home in order to gain a precarious subsistence.

In pursuance of this plan, the book consists of a mass of bare facts, leading the reader from the first discovery of the Australian continent to its condition at the present day. From these he can judge for himself. He will find no high-coloured statements of the wonderful fortune which he has only to put out his hand and take hold off, nor will he find any ingenious array of statistics to prove any particular case; not a figure being used throughout which will not convey practical information, nor any knowingly omitted which will convey it.

In the geographical portion of the volume, the Author begs to acknowledge the aid derived from the valuable work of Mr. Wells, published a few years ago in the colony,—a work which entitles its compiler to a high rank amongst the literary labourers of his adopted country. He has also, in several instances, consulted with advantage a volume published last year by Mr. Melville.

"Australian Gazette" Office,
London, June 10, 1852.

CONTENTS.

CHAPTER I.

THE COMING AUSTRALIAN EMIGRATION.

The gold fields—Chances for Australian cultivators—Classes who should emigrate—The poor—The middle class—The aristocracy—What each can do on their arrival out—Shepherds—Mechanics—Classes wanted—Cattle farming as a beginning—Colonial ideas of rank—Aristocratic enterprise in colonies—Female emigration . . . . page 1

CHAPTER II.

HISTORY OF AUSTRALIAN DISCOVERY.

Early conjectures as to the existence of a "Great South Land"—Chinese discovery of Australia probable—Marco Polo's chart—Expedition of De Quiros from Peru—Discovery of Torres Straits—Early Dutch navigators—Their discoveries on the north coast—The *Duyfken*—The *Endraght*—Dirk Hartog's discoveries—Carsten's—Discoveries by his marauding crew—Gerritz Tomaz Pool—The *Mauritius*—The *Leuwin*—The *Batavia*—The *Vianen*—The first expedition of Tasman—His second expedition—Dampier—Captain Cook—His various landings on the coast—Re-discovery of Torres Straits—Taking possession of Australia—Marion—Tobias—Furneaux—D'Entrecasteaux—Causes of first establishment of a British colony—Expedition of convicts under Captain Phillip—His refusal to land them at Botany Bay—Discovery of Sydney Harbour—Arrival of the *Boussole* and *Astrolabe*—Removal of the fleet from Botany Bay to Sydney Cove—Establishment of the Government—Subsequent explorers—Bass — Flinders — Discovery of Bass's Strait — Grant—Sturt, Mitchell, Leichhardt, &c.—Discovery of gold . . page 12

CHAPTER III.

HARBOURS AND RIVERS OF THE SETTLED PORTION OF AUSTRALIA.

Twofold Bay—Bateman's, Jervis, and Botany Bays—Port Jackson—Broken Bay—Port Hunter—Port Macquarie—Moreton Bay—Rivers—Hawkesbury—Macleay—Clarence—Richmond—Brisbane—Shoalhaven—Manning—Macquarie—Murrumbidgee—Murray—Lake Alexandrina—Darling—Peel River—Harbours of Victoria—Portland Bay—Western Port—South Australian Ports—Ports of Western Australia . . . . page 35

CHAPTER IV.

NEW SOUTH WALES—TERRITORIAL DIVISION.

Extent—Counties—Argyle—Auckland—Bathurst—Bligh—Brisbane—Cook—Cumberland—Gloucester—Hunter—Macquarrie—Murray—Phillip—Roxburgh—Westmoreland—Stanley—Squatting districts . page 54

CHAPTER V.

NEW SOUTH WALES.

Towns of New South Wales—Sydney—The Harbour—English air of Sydney—The Market—Hyde-park—Emancipists—Appearance of the city—Streets—Public buildings—Botanic Garden—Public institutions—Religious establishments—Manufactures—Bishoprics—Presbyteries—Revenue—Bathurst—Paramatta—Newcastle—Maitland—Morpeth—Windsor—Berrima—Wollongong—Boyd Town—Liverpool—Penrith—Appin—Port Macquarie—Roads . . . . page 67

CHAPTER VI.

NEW SOUTH WALES.

General features—Climate—Diseases—Seasons—Soil—Vegetable produc
—Fruits—Seed time and harvests—Clearing—Land—Mode of obtaini
—Squatting runs—Coal mines—Convict system—Statistics—Compa
with California . . . . page

CHAPTER VII.

NEW SOUTH WALES—INDUSTRIAL PURSUITS AND PRODUCE.

Adaptation of Australia for wool-growing—The formation of a sheep-run—First steps—Progress of the station—Hut, yards, furniture, &c.—Bush life—Profitable nature of it—Management of flocks—Arrangement of stations—Lambing seasons—Shearing—Conveyance of wool to market—Shepherds' wages—Sale of stock—Boiling down—Description of boiling-houses—Diseases of sheep—Cost of sheep—Plan of sheep-farming for persons of small capital—Cattle grazing—Arduous nature of the occupation—Cattle mustering—Branding—Purchase of stock—Burning the run—The dairy—Horses—Pigs—Goats—Tobacco—American emigration—Natives . page 105

CHAPTER VIII.

THE GOLD FIELDS OF NEW SOUTH WALES.

First notification of gold discovery—Summerhill Creek—Abercrombie River—Hundredweight of gold—Turon—Geological character—Frederick's Valley—Exports of gold—Gold localities—Geological observations by the Rev. Mr. Clarke—Present state of New South Wales—How to look for gold—Tests of gold—Gold extraction—Separation of gold—Gold washing—Assaying . . . . page 129

CHAPTER IX.

VICTORIA.

Situation—Port Phillip—First settlers—Opposition of the Government—Counties—Harbours—Towns—Melbourne—Geelong—Soil and climate—Scenery—Population—Imports—Fertility of the colony—Educational statistics . . . . page 190

CHAPTER X.

THE VICTORIA GOLD FIELDS.

Discovery of gold—Streets paved with gold—Another hundredweight—Effects on labour—Official returns—Society in danger—Amount of gold procured at Ballarat—Mount Alexander—Comparative produce—Condition of the diggers—Demagogues—Music at the diggings—Sly grog shops—License [illegible]s—Provisions—Bad roads—Principal localities of gold in Victoria—Commercial statistics—Production of gold . . . . page 208

CHAPTER XI.

PRACTICAL ADVICE TO EMIGRANTS AS TO THE BEST METHOD OF GETTING TO THE AUSTRALIAN COLONIES.

First steps—Emigration funds—Government emigrants—Family Colonization Society—First and second class ships—Emigration companies—Examples of their failure—Safety of the voyage—Best times for sailing—Provisions—Outfit—Luggage—Comparative eligibility of New South Wales and Victoria . . . . page 237

THE
GOLD COLONIES OF AUSTRALIA.

CHAPTER I.

THE COMING AUSTRALIAN EMIGRATION.

The gold fields—Chances for Australian cultivators—Classes who should emigrate—The poor—The middle class—The aristocracy—What each can do on their arrival out—Shepherds—Mechanics—Classes wanted—Cattle farming as a beginning—Colonial ideas of rank—Aristocratic enterprise in colonies—Female emigration.

The astounding discovery of gold mines in Australia, to an extent hitherto unparalleled;—the abundance of the precious metal, which only waits to be gathered, without any of those costly and laborious processes which characterize the production of gold in the old, or even in the new world—Australian gold being for the most part found in solid masses, varying in weight from an ounce to a hundredweight, these masses or "nuggets," as they are termed, being, moreover, of the purest quality;—the now established fact that this gold is scattered over hundreds of square miles of country, being in fact inexhaustible, and lying for the most part on or near the surface of the ground, where comparatively little labour, and no skill whatever, is requisite to obtain it;—the absence of that unhealthiness and discomfort which, arising from the severity of climate, renders gold mining in California a dangerous and highly laborious pursuit;—all point to Australia as a locality in which the unprosperous masses of England may exchange their short commons for certain wealth—the privations which at home keep down their energies, for a country in which privations of the kind they now endure are unknown—a country into which poverty has not entered, and which, setting aside gold, possesses a soil, climate, and facility of production, fitted for the sustenance and enjoyment of man, second to no other country on the globe.

But with all its golden advantages, Australia has yet greater for the emigrant who prefers the comforts and decencies of life to bartering his soul for gold. In Australia, as elsewhere, Mammon carries his curse with him, and his worshippers must partake of it. Drunkenness, debauchery, crime, and immorality, in every shape, are the characteristics of such a society as is now gathering in the gold districts. There are thousands of respectable families in England whose interest it will be to emigrate, but who would not encounter such a condition for all the gold Australia contains. Nor need they do this: gold-hunters must eat, and those who supply them with the means of so doing, will assuredly get their share of the gold produced. The vast numbers who will flock to the mines from all parts of the Southern and Eastern world, offer a market to the Australian cultivator and trader scarcely inferior in point of profit to the gold fields themselves,—a profit of which all capable of labour must partake, so that none need fear that they will go unrewarded.

There are three classes in England to whom emigration to a country like Australia is highly desirable:—1st, the really poor; 2ndly, the struggling middle classes, whose small capital dwindles away year by year till they fall into the ranks of the first named class; 3rdly, the apparently rich, but in reality poor, portions of the aristocratic class, who at home are struggling with the thankless difficulty of maintaining station and appearance in defiance of the want of means, which their struggles only serve to render the more apparent, displaying shabby in place of real gentility. To all these classes emigration is a subject of the deepest importance.

Fortunately the poor, with whom the difficulty hitherto has been how to get out, will have this difficulty obviated by the fact of the very abundance of the Australian gold fields. It so happens that this discovery has aimed a blow at the very existence of one of our most important manufacturing staples at home—the wool-manufacture. If means be not adopted, and that speedily, to throw a larger quantity of labour into the colony than will be likely to go to the gold mines, the wool produce of Australia will cease for ever, and with it the wool trade of England; so that the poor have now a chance of getting that done for them from self-interest which has not hitherto been considered an object of national importance. England has hitherto neglected that system of national emigration which ought to have been the safety-valve of her policy, and she is now reaping the first-fruits of want of national foresight in the destruction of one of the most important branches of her commerce. We will tell the poor man by-and-by how he can avail himself of this altered feeling towards him; he need not trouble himself about the motives which send him forth, so that he get out.

With the struggling portion of the middle class—and its name is legion—little need be said to induce them to take the only step which can result in good. The almost certainty of losing the small capital they possess, from its inadequateness to compete with the large capital which meets them at every turn in this land of bloated wealth and struggling poverty—the ridiculous necessity under which this class apparently lies of keeping up an appearance with their rich neighbours, who after all only ridicule it—the hopelessness of amending their position, and the certainty of that position becoming eventually worse—should point out to all composing it the necessity of departing from a land which can only be lived in on such conditions, whilst the means of emigrating are yet left.

To persons of a nominally higher class, the appearance of which cannot be easily kept up without a degree of meanness inconsistent with the pretensions of the class, emigration should be a desideratum, requiring very little reasoning to induce those which form the class to avail themselves of its advantages. Younger sons, nephews, and many other connections of persons in a superior grade, would find little difficulty in obtaining the means for a sufficient start in Australia, where all their former mode of life may be preserved, with the additional advantage of abundance of means wherewith to preserve station.

We will now shew each of these classes what they can do on arriving in the colony, independently of gold-mining, which some would not follow from disinclination to encounter its many disagreeables, as well as from a knowledge that the money of the gold diggers must circulate, to the advantage of those not engaged in gold-hunting.

The poor man will, on his arrival in the colony, find that his labour is at once in demand, at highly remunerative rates; not, perhaps, at those which from the scarcity of labour are now demanded, for these cannot last without destroying the means of employing labour—the value of no produce would bear them. But he will find instant employment, at rates far beyond what he has been accustomed to in whatever portion of the country he may land. Australia is emphatically the poor man's country. The capital of the labourer and the mechanic—viz. the strong arm, combined with skill—are always wanted, and produce an immediate return. The State may have been supine in not having before removed him from a land in which his strong arm and skill were of secondary importance, to another portion of the empire which required both, but he will at length have the chance of removal, and at a time when both are in greater demand than ever. Even if he do not possess skill, the deficiency is a trifling one; he will find plenty of people willing to pay him handsomely whilst he is acquiring experience, and he will for ever have escaped from penury—toil without adequate remuneration—physical discomfort—and a thousand annoyances to which he now wakes every morning only to find them realised before night.

But the advantage of being duly remunerated for his toil, is only the beginning of the career before him. If prudent, he will soon find that he is in a condition to exchange toil for comfort, and from the very first to combine the two. This will be succeeded by independence, not in the English sense of the word, but the independence of being perfect master of his own time and actions, having plenty of his own, and being under no obligations to others. Many poor men make fortunes, and especially by the lottery of gold-finding, in which the strong arm is superior to the clear head; but let not the poor man at home expect this: if he find it, so much the better: and so much the sooner can he remit part of his wealth home, to enable his still poor relations to join him, and again set up the household gods in company.

To prescribe to the labouring man what he can do on his arrival in the colony is impossible. The writer who would so prescribe is a quack. Suffice it that anything he cannot do he can learn, and be well paid for it whilst learning. Next to gold, the produce of the country is pastoral: in this the agricultural emigrant is skilled; but the fact of not being skilled need not deter the veriest cockney from emigrating with the intention of pursuing a pastoral life. Under the old system of convictism, the favourite shepherds amongst the stock-farmers in New South Wales were London pickpockets, for whom there was always a contention, on account of their superior shrewdness and activity. The London clerk, porter, mechanic, will make none the worse shepherd for not having been transported. A late writer thus sums up the class of shepherds in his district:—"An apothecary, a lawyer's clerk, three sailors, a counting-house clerk, a tailor, a Jew, a Portuguese sailor, a Cingalese, a barman, a gentleman's son, a broken-down merchant, a former lieutenant in the East India Company's service, a gipsy, a black fiddler, and a dancing-master." The best shepherds were the gentleman's son, the Jew, and the barman. And such men are liked better than the regular-bred English shepherd, who has in general the two bad qualities of never obeying orders, and always knowing better than his master. No poor man, in any class of life, sho ever suppose that he does not know enough for the duties of an Australian shepherd. The situation will, in every case, soon teach him those duties, as will also his employer, for his own sake. If he has a wife, so much the better; she is as well qualified for a hut-keeper as he is for a shepherd, and will be taken together with him, thus increasing his wages, and doubling the chance of getting a flock of his own.

If the emigrant intend to follow any trade with which he may be acquainted, it will be useful for him to know what trades are most in demand. If he be not one of these, let him quit his trade, and turn shepherd. The following are the principal mechanics in request: — Brickmakers, bricklayers, stonemasons, blacksmiths, carpenters, rough cabinet-makers, miners, shoemakers, tailors, sawyers, and generally all trades which contribute to the comfort of man and his dwelling, with the exception of painters and decorators. Skilled trades, as engravers, jewellers, watchmakers, silversmiths, &c. &c., are not in request; all such must turn shepherds, or they had better remain at home. All may, however, go: flocks and herds are a never-failing resource, and an immediate one. Skill will soon come; and all the most unskilled emigrant requires to advance himself are—industry, intelligence, and a determination to succeed. Till within the last few years, Australia has risen to its high position chiefly by the aid of convicts, skilled in nothing but robbery, but possessed of enterprise and energy. It would be strange if free men, gifted with the same good qualities, and devoid of the bad ones, should doubt that they too can succeed, however deficient in pastoral skill.

To the middle classes, the field in Australia is illimitable. These possess small yet sufficient capital, and usually education —in other words, the means to succeed, and the mental requirements which further success. The great difficulty of this class is, in general, the dislike of breaking up family connections, and the consequent repugnance to leave their country. But where is the use of staying in the face of adverse circumstances? From this cause alone, family connections break themselves up with-t emigration. The well-to-do tradesman has no family recollections whatever of the ill-to-do;—his memory on this point is certain to become deficient, and the latter act unwisely to remain between the wind and his vulgarity; a few years may enable them to look down upon him, when, in his turn, his capital too—staked upon some blundering speculation, perhaps—has taken to itself wings, and flown away. If one thing is more uncertain than another, in the middle-classes of England, it is that of even a life of arduous labour being rewarded in the end by permanent family prosperity. In England a man may rise up early, and eat the bread of carefulness, but from our complicated commercial system, or from other causes, with all his industry, and all his care, he may find that he has all his life been only laying up poverty for his old age. This is not so in colonies: there the industry of man founds families, here it but too often breaks them up. The patient scrapings of an English life are often scattered by circumstances over which the gatherer has no control. In colonies they go unmolested to his descendants, unless he prefer the excitement of speculation to industry.

At the present period, when flocks are becoming comparatively valueless, from the want of labour, which has fled to the gold fields, there are excellent chances for a man with a thousand pounds or two, to get a sheep-run on favourable terms. If two or three persons, possessing even less, were to join in such a pursuit, it would form a partnership of a highly profitable nature, provided the parties could depend on each other's probity and industry—for in New South Wales it is highly requisite that partners should pull the same way. A person, even with half the above sum, may profitably invest it in cattle in a manner which will enable him to look about him. It is common enough in Australia for a man to purchase cattle, and agree with a stock-farmer to keep them at his own expense, receiving one half or two fifths of the increase, and of the profits of butter and cheese. Thus, both the stock and the profits of the invester are going on while he may be otherwise employed, or may be waiting for a suitable location, or may be acquiring the necessary experience to enable him to commence stock-farming on his own account. It is also common to place cattle with a farmer who has a good run, at the rate of sevenpence or eightpence per head per month, he finding all labour, and thus the foundation of a herd may be laid, which will speedily repay its outlay as well by profits as increase. The former of these plans, where the capital is insufficient at first to enter upon a run, will, in a few years, enable the possessor to accomplish his original intention, if he steadily adhere to it. Even in this way dairy-farming, stock and horse breeding are very profitable modes of investment, and are free from many dangers which beset sheep-farming. Numbers of the wealthiest men in Australia have risen from less beginnings than these.

Other occupations in abundance present themselves, whilst experience is being gained; for all men with small capital should gain this before finally settling down. But, next to gold finding, agricultural and pastoral occupations should be the point at which the small capitalist aims. He will choose the one or the other, as his avarice or his inclination prompts; but having chosen his course, let everything tend towards the end desired. A small farm, for instance, is easily obtained in Australia, either by purchase or on lease. This may not, at first sight, appear to promise a fortune, but it will, in reality, lay the foundation of one. A few acres under cultivation, a few milking cows, pigs, poultry, &c., may not make a show in the amount of their produce at market, but they will keep the establishment without outlay, while experience is being gained, and while the stock we have spoken of is increasing. There will be no needless cash expenditure, whilst the silent, but sure increase of the capital invested in stock is going on at a rate which beats compound interest, even at twelve per cent. In the ordinary condition of the colony, a hundred pounds per annum will go as far as two or three hundred at home; and there are no taxes, excise, poor-rates, church-rates, tithes, and other unbeneficial charges, which are constantly draining the pockets of the English farmer. If pital be only judiciously applied, not forced into activity before its time, and then not beyond its capabilities, the possessor of capital, however small, need not fear to embark it in colonial enterprise. The chief danger is the being tempted to use it speculatively; this is the besetting temptation of the Australian colonies, and if yielded to, the capital will go—where that of thousands has gone before it—to the dogs.

To the poorer of the aristocracy of this country, Australia offers an enticing field; but they must be careful to leave their aristocracy at home. Rank and title have no charms at the antipodes; and the most that they could effect for the bearers, would be an occasional lionization at snob dinners in the town in which the aristocrat may be wasting his time and his money. Great family connections and ancestry would only provoke, to any who should parade them, the remark that "he was like a potato: all that was good belonging to him was underground." The majority of the colonists are essentially snobs, and they are justly proud of the distinction. "I landed in the colony without a shilling, and am worth a hundred thousand pounds," has infinitely more charms for them, than "I am the descendant of a lord, and am as poor as a rat." Put the two men together,—the one will be worshipped, and the other cut; unless with his aristocracy he evince a decided aptitude for snobbish pursuits, and then he will receive a helping hand, which will be of infinitely more use to him than his aristocratic reminiscences.

When the scions of aristocratic houses do emigrate, they often display more energy and enterprise than their less highly-born brethren. Till they get out, they do not seem to suspect the latent spirit within them, which has no opportunity for display in the fashionable lounges of London,—it comes out, nevertheless. When, some years ago, the author of this book was in New Zealand, he observed there some remarkable instances of this. The second son of a lord prided himself more upon his skill as a blacksmith, which useful art he had acquired previous to leaving England, than upon his lordly descent. The brother of a baronet was the most enterprising cultivator in the colony. The son of another was unmatched as a pedlar, distributing "notions" of all sorts amongst the natives in exchange for flax and potatoes. The daughter of a third, a highly accomplished lady, once related to the author, with great glee, the droll circumstance of alternately with her husband holding an umbrella over each other's heads at night, whilst each, in turn, got a wink of sleep, amidst torrents of rain pouring through the thatch of the hut. The success of all was commensurate with their exertions, and numerous similar instances might be narrated with reference to Australia; though, from the dissipation of Australian towns, some unhappy instances of a contrary description would have to be told; but the worthless amongst the emigrating aristocracy are the exception, and not the rule.

Another class of persons is much wanted in Australia, and it is a class with which England is but too well furnished, viz., females. The disproportion of the sexes, though much has been done of late to remedy it, is still very great; and if taken out under parental protection, or under the auspices of the London committees for the purpose of female emigration, too many females can scarcely be sent. Much will, however, depend on themselves. Australian squatters and gold hunters are well to do in the world, and have abundant means of creating desirable homes, but they have discrimination as to what is wanted to make a home desirable. Industrious young women, even though with little pretensions to beauty, would not be long in finding such homes; but fine ladies, possessing nothing beyond the trashy accomplishments which in England are thought so much of, would not only not succeed in forming favourable alliances, but would run great risk of the lowest social degradation. Amongst the more refined class of well-to-do colonists, there would be some hesitation in forming alliances with women who did not come out under the protection of relatives, but the generality would be well content with such female emigrants as have been sent out by the London committees. Young women who contemplate emigrating should, however, remember that the settlers require industrious, domesticated wives, and that they are sufficiently acute not to take any other. The success of such has been very great, and, unhappily, the degradation of females of an opposite character has been very great also. Useless fine ladies are completely out of place in Australia: they are not likely to marry; the number already in the colonies for educational purposes is overdone; they will not condescend to become servants; and they cannot get back to England. Reduced to a penniless condition, many have been driven to the necessity of offering what little service they have it in their power to give for their food and shelter; if this could not be obtained, the alternative may be readily guessed. But for the introduction of industrious, unpretending girls, whether as wives or servants, there is scarcely any limit. The step is, however, a serious one, and cannot be recalled; once made, it must result in great good, or great evil—there is nothing intermediate. The home, whenever found, will be a plentiful one, but it will be an industrious one. Indeed, without constant occupation, the life of a woman in the Australian bush would be insupportable. Shut out from the world, without other amusement than that arising from her duty to her home, industry would become to her a necessary of life. Such a life of solitude has, however, one great advantage; a few years only are requisite to accumulate sufficient to spend the remainder of life in the comforts of society. Not that she would run any risk of wanting such comforts as were attainable: bushmen are proverbially kindhearted, and nothing would be wanting on their part to comply with a wife's wishes, as far as they could be complied with; but a want of many social comforts must be expected, till society should draw nearer to them, or they were in a condition to go to society. We shall treat more of this subject when we lay before the reader the mode of setting about emigration in earnest. In the mean time, we will supply the reader with an account of the country itself, its capabilities and pursuits, when he or she will be better able to judge of the step which thousands are desirous of taking, but few know how to go about.

CHAPTER II.

HISTORY OF AUSTRALIAN DISCOVERY.

Early conjectures as to the existence of a "Great South Land"—Chinese discovery of Australia probable—Marco Polo's chart—Expedition of De Quiros from Peru—Discovery of Torres Straits—Early Dutch navigators—Their discoveries on the north coast—The *Duyfken*—The *Endraght*—Dirk Hartog's discoveries—Carsten's—Discoveries by his marauding crew—Gerritz Tomaz Pool—The *Mauritius*—The *Lewwin*—The *Batavia*—The *Vianen*—The first expedition of Tasman—His second expedition—Dampier—Captain Cook—His various landings on the coast—Re-discovery of Torres Straits—Taking possession of Australia—Marion—Tobias—Furneaux—D'Entrecasteaux—Causes of first establishment of a British colony—Expedition of convicts under Captain Phillip—His refusal to land them at Botany Bay—Discovery of Sydney Harbour—Arrival of the *Boussole* and *Astrolabe*—Removal of the fleet from Botany Bay to Sydney Cove—Establishment of the Government—Subsequent explorers—Bass — Flinders — Discovery of Bass's Strait — Grant—Sturt, Mitchell, Leichhardt, &c.—Discovery of gold.

On the discovery of the New World, it became a favourite theory with European geographers that there must exist in the Southern Hemisphere a vast continent, which should counterbalance the land of the Northern Hemisphere. Amongst the first-fruits of the discovery by Vasco de Gama of a passage round the Cape of Good Hope, were a series of expeditions, set on foot by the leading maritime European nations, in order to investigate the problem, each vieing with the other in enterprise.

The existence of such a country, even at this early period, was beyond conjecture; for, previous to De Gama's discovery of the Cape route, a chart was in existence, which had been drawn up by Marco Polo, and in this was indicated the position of a "Great South Land," of the existence of which he had been informed during his sojourn among the Chinese, to whom, no doubt, belongs the honour of the first discovery of Australia, there being not only tradition to this effect amongst the aborigines, but circumstantial evidence of the most conclusive kind. An instance of this occurred during the past year, viz., the finding of Chinese oars, and other nautical implements, at a considerable depth beneath the surface of the ground; thus fully confirming the native traditions, as also the long period which must have elapsed since their visit, from the accumulation of alluvial deposit over the evidences themselves. The natives state that their Chinese visitors were murdered.

In addition to the chart of Marco Polo, another chart—now in the British Museum—and bearing the date of 1542, was in the hands of the scientific. This indicates, unmistakeably, a previous knowledge of Australasia, as on it is marked an extensive country to the southward of the Moluccas, which country is named "Great Java." The outlines of this chart so far agree with the north and north-west coasts of Australia, as to render it certain that the knowledge thus imparted—however it might have been acquired—was the result of actual experience rather than theory.

Whatever might have been the amount of this previous knowledge of the new country, it had evidently taken firm hold of the geographers of the period, and was promptly acted on by the Spanish, Dutch, French, and English nations, though the records of all are very imperfect. The two latter nations have but little claim to early enterprise, though the French assert that their navigator, Gonneville, visited Australia in 1504; but the object of his visit is now well known to have been Madagascar.

The Spaniards would appear to have been the first amongst European nations, to whom the honour of authentic Australian discovery is really due, and their claim to it is well-founded

In 1605, subsequent to the settlement of the Spaniards on the west coast of South America, Fernandez de Quiros sailed from Peru in search of the Terra Australia. After discovering several islands in the Pacific, he came to a land which he termed Australia del Espiritu Sancto, which would appear to have been the north or north-east coast. This he supposed to be a portion of the great southern continent; but his second in command, Vaes de Torres, having become separated from the admiral in a storm, on pursuing his researches independently, discovered the insularity of the northern portion of the country, by passing through the Strait which now bears his name, and so round Cape York into the Arafura Sea. It would almost appear, from his having thus pronounced the country to be an island, that De Quiros had previously circumnavigated, at any rate, a large portion of the eastern coast, or that Torres had obtained reliable information from some one who had preceded him.

This discovery by Torres has only become known at a comparatively recent period, and the way in which it became known is curious. On the capture of Manilla by British troops in 1762, Mr. Dalrymple found amongst the Government state papers, a copy of a letter from Torres to the king of Spain, who, with the usual jealousy of European monarchs at this period, had kept the secret of his discoveries from becoming generally known. The discovery of this letter, however, places the fact beyond doubt; and the more so, as it announces that the Spanish navigator spent two months in investigating the intricate navigation of the strait which divides Australia from New Guinea. From the same jealousy of the Spanish government, we know nothing of the discoveries of De Quiros in this voyage, nor should we have learned anything of those made by Torres, but from the circumstance alluded to. Mr. Dalrymple, on finding the letter, rescued the name of the enterprising Spanish navigator from oblivion, by giving it to the strait which he had discovered. The most singular circumstance connected with the finding of Torres' letter is, that this occurred eight years before Cook re-discovered the same strait, and though that period had elapsed, the facts relative to Torres were unknown to him, as he distinctly announced his own original discovery of a part, in which he was "sure no European had ever before been." The hydrographical department of the Admiralty must have been most negligently conducted, as no doubt a copy of Torres' letter had been lodged there some four or five years previously to the departure of Cook on his first southern voyage.

The Spaniards were followed by the Dutch, who were indefatigable in their attempts to explore the new land, which had accidentally become revealed to them whilst examining the coast of New Guinea. This occurred in 1605, the same year in which De Quiros sailed from Callao, and the discovery of the Dutch must have taken place near the same locality, if, indeed, the Dutch and Spanish ships were not, though unknown to each other, at the same time in almost the same waters.

The ship first despatched by the Dutch was the *Duyfken*, which sailed from Bantam with instructions to explore the New Guinea coast, and islands adjacent. In pursuance of these instructions, she sailed along what was considered to be the west side of that island, but which was, in fact, a part of Terra Australis. The *Duyfken* penetrated as far as 13⅓° south latitude, coasting along nearly as far as Princess Charlotte's Bay, on the eastern side of York Peninsula, which was not far from the cape by rounding which Torres pronounced Australia to be an island. The vessel returned to Bantam in June 1606, after having thus unconsciously discovered the long-sought-for "South Land."

The second expedition sent out by the Dutch was in 1617, though in the previous year there is evidence that a private vessel had gone upon a similar expedition. A yacht was sent on this occasion in search of the "South Land," but with what success is not known, as the journals could not be found. From the instructions given to Tasman in 1644, we learn that, in the years 1616, 1618, 1619, and 1622, the west coasts of the great "Unknown South Land," from 35° to 22° south latitude, had been discovered by outward-bound ships, amongst which is honourably mentioned the ship *Endraght*, Dirk Hartog, commander. In a manuscript chart by Eesel Geritz, dated 1627, the first authentic discovery of the west coast is attributed to Dirk Hartog, who saw the coast in 26½° south latitude, and sailed northward to 23°, giving the name of his ship to the country so discovered. This will be still found on Australian maps to the northward of Shark's Bay on the west coast. Shark's Bay, afterwards so called by Dampier, from the number of these sea-vermin found in its waters, was considered by Flinders as the most important part of Hartog's discoveries, being in fact the only then known harbour of any importance. It has recently become famous for the quantity of guano found on the islands at the entrance. This is, however, exhausted, having been transported in large quantities to the Mauritius.

Upon one of these islands—Dirk Hartog's Island—there was found in 1697, and again in 1801, a most interesting memorial, in the shape of a pewter plate, upon which were two inscriptions, written at different periods; the first, recording Hartog's visit in 1616, and the second, the visit of the Dutch ships *Geeluink*, *Nyptangh*, and *Net Weseltje*, all under the command of Captain Vlaming. The inscription relative to Hartog's visit was as follows:—

"1616. On the 25th of October, the ship *Endraght*, of Amsterdam, arrived here; first merchant Gilles Miebais Van Luck; Captain Dirk Hartog, of Amsterdam. She sailed on the 27th of the same month, Bantam: supercargo, Janstins; chief pilot, Pieter Ecoores Van Bue . . . . Year 1616."

In 1623, the yachts *Pera* and *Arnhem*, were despatched from Amboyna, on a similar errand. Carstens, the commander of the expedition, was murdered on the coast of New Guinea, together with eight of his crew. The survivors appear to have pursued their voyage, and discovered the great islands of

"Arnhem and the Spult;" in other words, the western extremity of the Gulf of Carpentaria. The *Arnhem* returned to Amboyna, but the *Pera* proceeded along the west coast of the bay, and then appears to have crossed it to Cape Keerweer; from whence she explored the coast as far as 17° south latitude, when, seeing the land stretching to the westward, which would appear to be the land at the bottom of the Gulf, she returned to Amboyna also.

In 1636, Gerrits Tomas Pool was sent from Banda, on a similar expedition to that of Carstens, whose fate he also met from the savage inhabitants of New Guinea. His squadron consisted of the yachts *Klyn*, *Amsterdam*, and *Wezel*. After his death, the crews also pursued their voyage, and sailed along the Arnhem coast, as this part of Australia was then called, for 120 miles south of 11° south latitude, or to about the same distance as the *Duyfhen* had been before them.

The *Mauritius*, another outward-bound Dutch ship, touched at Willem's river, near the north-west cape, in July 1618. Captain Edel, commanding an outward-bound Holland ship, also touched on the coast in July 1619, and called the land from 29° to 26° south latitude after his own name. This now forms a portion of Western Australia.

The ship *Leuwin*, another outward-bound vessel, fell in with the coast as far south as 35°, or the southern extremity of modern West Australia. To the cape at the extreme point the name of Cape Leuwin was given, and it is memorable for the difficulty of rounding it on the return voyage, from the violence of prevailing westerly winds. This is one of the difficulties which the return steam route to Singapore will have to encounter, though it will probably be avoided by sailing close in shore, as is often done when rounding the Cape of Good Hope.

In 1628, the *Vianen*, one of the seven ships which returned to Europe under the command of General Carpenter, is reported to have seen the shore; and the circumstance is thus alluded to in the Dutch recital:—"The coast was seen acc dentally, on the north side, in 21° south latitude, and coasted 200 miles without gaining any knowledge of this great country, only observing a foul and barren shore, green fields, and very wild, black, and barbarous inhabitants." This was termed De Witt's Land, and forms the north-western portion of the modern colony of Western Australia.

On the 4th of June 1629, the Dutch ship *Batavia* was wrecked on the Abrolhos, or Houtman's Rocks, on the west coast, these lying in about lat. 28° S.; her commander, Francisco Pelsert, coasted along in his boat to lat. 22°, when he proceeded to Batavia, to procure succour for some of his people left on the Abrolhos. Previous to this, the Dutch ship *Gulde Zeepard* had discovered the south coast, to which was given the name of Nuyt's Land. This lies in a deep bay to the northward of the modern colony of South Australia. The commander, whose name is not known with certainty, is said to have explored the coast for 1,000 miles from Cape Leuwin.

The preceding is an outline of the condition of Australian discovery previous to the despatch of Tasman in 1642. The Dutch government, being anxious to ascertain how far the south coast of the "great unknown land" extended towards the antarctic circle, despatched Tasman on a voyage of discovery into the South Sea. He had under his command the *Heemskirk* yacht, and the *Zeedhen* fly-boat. Tasman sailed from Batavia on the 14th of August 1642, and stretched to the westward and the southward, evidently with the intention of coming at once on the extreme south coast. On the 4th of November, in the same year, he discovered land in 42° 25′ south latitude, and 163° 20′ east longitude. The new country was designated Anthony Van Diemen's Land, in honour of the Governor at Batavia, and the islands were named after the council. On preparing to enter a large inlet, the vessels were driven off by a gale of wind. On the 1st of December the vessels stood in with an easterly breeze, and came to an anchor in a good port, ich Tasman named Frederick Henry Bay. Wherefore, adds ious navigator, "we ought to praise Almighty God." The name which Tasman gave to the Bay is still retained by the colonists. After spending eleven days on the coast, and erecting a post with the Dutch East India Company's mark on it, Tasman departed for Batavia, sailing along the south coast, without suspecting it to be an island, and then proceeded to the eastward.

In 1644, Tasman was despatched on a second voyage, with instructions, that after passing the coast of Arnhem, in 17° south latitude, he should follow the coast westward or southward, in order to ascertain whether it was divided from the "great *known* south land," or not. From the expression "*known*," it is evident that the Dutch had acquired considerable knowledge of Australian hydrography on the north and north-west coasts. In pursuance of these instructions, Tasman entered the Gulf of Carpentaria, where he was, of course, stopped by the land at the bottom. He, however, sailed round it, and his track is to this day indicated by the names which he applied to the different points met with, viz:—those of the Governor-General, of two of the Council, and of Maria, the daughter of the Governor-General, to whom he was attached. No account of this voyage of Tasman has ever been published, so that we have no further means of ascertaining what discoveries he made. Those which we do know, with the exception of Van Diemen's Land and New Zealand, are scarcely worthy of the fame usually accorded to him,—since, as we have seen, he had abundant information at his command, and this had chiefly been obtained from expeditions fitted out by Dutch settlers in India, and from the outward-bound vessels which had so long been obtaining an accurate knowledge of the western coasts.

Upwards of a century now elapsed before any other national expedition was sent out for the purposes of Austral discovery. The fact of the existence of the "Great South Land" had been established, though nothing whatever was known of its inhabitants or productions; and with this mere hydrographical knowledge, all parties, even the Dutch, appear to have remaine satisfied. A visit to the west coast was, it is true, paid by the English navigator, Dampier, and his buccaneers, in 1688, but only for the purpose of careening and refitting, which he did in about 16° south latitude. Dampier afterwards revisited Australia in his Majesty's ship *Roebuck*, but added nothing to the store of maritime knowledge.

The first connected outline of the shore was published in 1663, in Thevenot's chart of the west coast. In this chart the country is called Hollandia Nova, and of this information there is no doubt Dampier availed himself.

The next most important event relative to Australian discovery, and that which immediately led to the occupation of the country as a British colony, was the visit of the English navigator Cook, during his first voyage round the world, which was undertaken, by order of George the Third, for the purpose of making discoveries in the southern hemisphere, tending to the advantage of future navigators. The *Endeavour*, a barque of 300 tons, was equipped and heavily armed for the purpose; and Cook having been appointed to the vessel, several eminent men of science, aware of his previous reputation, applied to him for permission to accompany the expedition. The most noted of these was Mr. Banks, a gentleman of fortune, afterwards Sir Joseph Banks, who, setting at nought the difficulties and dangers of such a voyage, determined to sacrifice his ease to a love of scientific investigation. With him was associated Dr. Solander, a Swede, and pupil of Linnæus. The object of these gentlemen was to obtain a knowledge of unknown plants and productions which might promise to be of general utility.

On the 26th of August 1769, the *Endeavour* sailed out of Plymouth harbour, and on the 19th of April 1770 the first land of New Holland was descried, and named by Captain Cook "Point Hicks," from the name of the first lieutenant, who discovered it. This point lies a short distance to the southward of Cape Howe, in the district now called Gipps Land.

Capt. Cook did not, however, land here; but proceeded along the coast, in the direction of Botany Bay, where he first landed.

This bay was so called from the large number of plants there collected by the naturalists of the expedition; and has since become famous—or rather, infamous—from its connection with the English system of convictism,—though, in fact, no convicts have ever been located there—the name having long been retained in England from its having been their original place of destination, had it not been found unsuitable to the purpose intended.

After leaving Botany Bay, Capt. Cook steered to the eastward—passing almost unnoticed the portion of the coast which forms now one of the busiest portions of the country—till he came to what is at present designated as North Australia, where he landed in about 24° 20′ S. Amongst the sand banks he saw a number of birds larger than swans, which he took for pelicans; and here he shot a kind of bustard—in all probability a young emu—from which he named the place "Bustard Bay." From this place he procèeded northward, and again landed two degrees further on; and, as no water was to be found in the different excursions made into the interior, he named the inlet in which the ship was anchored "Thirsty Sound."

Proceeding still northward, he came to a river, at the entrance of which the ship struck on a coral-reef—a very common accident in these seas, though in this particular part not often fatal, as the surface of the reefs is, for the most part, composed of shingle. From the accident, he named the river "Endeavour River," and here he careened and repaired his ship. Whilst here, one of his crew gravely reported that he had met with the devil, which celebrated personage he described as being as large as a gallon keg, and *very much like it!* except that he "had horns and wings, and crept slowly through the grass;" the whole description much differing from the personification of the same mysterious individual as vouched for by Milton. The devil afterwards turned out to be an immense bat, well known in the colony, but to which the man's apprehensions had certainly added the horns.

Captain Cook was now fairly in with the reefs of what termed the "inner passage" of Torres Straits, of the previous discovery of which, as before narrated, he was ignorant. These straits are one mass of islands, reefs, and shoals, the latter being the most dangerous, as they can only be seen during the former portion of the day, the navigation being considered unsafe after an hour or two beyond the sun's passage of the meridian,—for which reason, ships passing through them then usually come to an anchor under the lee of one of the reefs. The navigation is at all times difficult, and, with a contrary wind, impracticable. The water is never deep, and towards the narrowest part of the strait it is seldom more than twelve or fourteen fathoms, and often not above half as much; hence arises the necessity for having the sun in such a position that the shoal portions can be distinctly seen from the difference in the colour of the reflection from the water. In no part of the world is such extreme care requisite in the navigator, and in no part is the greatest vigilance so often thwarted by the wreck of the vessel.

From this description, the difficulty of first encountering such a navigation with safety may be estimated, as also the vigilance of such navigators as Torres and Cook, to both of whom it was new. Cook, however, like his predecessor, safely threaded these intricate passages, and like him arrived at the extreme northern point, which he named Cape York. Having anchored between some islands in the vicinity, subsequent explorations convinced him of the practicability of a passage into the Indian Sea,—a passage now familiar to most seamen. On one of the islands spoken of he landed, and having displayed English colours, he took possession of his discoveries, from which circumstance the island is still called Possession Island. It lies in about 10° 30′ south latitude.

The formality which Cook used in this ceremony shews that he was entirely ignorant of the discoveries of Torres, which through the jealousy of the Spanish monarchs had been lost. Upon this point his own words are conclusive. They were as follows:—"As I am now about to quit the east coast of New Holland, which I have coasted from latitude 38° to this place, *and which I am confident no European has ever seen before*, I once more hoist English colours; and though I have already taken possession of several parts, I now take possession of the whole eastern coast by the name of New South Wales, in right of my sovereign, George the Third, King of Great Britain. His men then fired three volleys of small arms, which were answered by the same number from the ship. The ceremony concluded, by which the English nation became possessed of this magnificent country, Cook re-embarked, and verified his anticipations of the insularity of Australia, by finally passing through the strait, to which he also gave the name of his ship.

In the interval which elapsed between Cook's visit and the formation of a British convict settlement, but few voyages of moment to Australia took place. The south coast was visited by Vancouver on his way to the west coast of South America. He anchored in a sound, to which he gave the name of the reigning monarch: this sound is one of the principal harbours of West Australia. Vancouver had intended to survey Nuyt's Land, but was prevented by bad weather.

In 1772, Capt. Marion du Fresne, a French officer, visited Van Diemen's Land, and anchored in Frederic Henry Bay. They were well received by the natives, who piled a large heap of wood, inviting them to light it, as would appear with the intention of ascertaining whether the new comers were about to make their homes, or light their fires, in the country, and if so, to drive them out. M. Marion, thinking to conciliate the natives, did as he thought they desired, and set fire to the pile, when an attack was immediately made on the party, in which Marion and his brother commander were wounded. The French fired on their assailants, and returned to their boats. On again landing, they were once more attacked, and a retaliation was made with a volley of musketry, and a subsequent pursuit, in which many natives were slaughtered. This laid the foundation of the enmity which ever afterwards existed between the native and the white man, and throughout the existence of t colony, the feud has been kept up under circumstances of great atrocity on both sides;—the settler invariably shooting the native wherever he met with him—and could do it with impunity—and the native murdering the settlers and their families, frequently under circumstances of the most barbarous cruelty. The result has been unparalleled in English colonial history. In Flinders' time he estimated the natives of Van Diemen's Land at 100,000. *There is not now a living soul of this unhappy race on the island.* All have fallen before the fowling-piece, poison, and the rum-bottle,—poison being the most effectual agent. Whole tribes, both on the continent and in the island, have been thus disposed of by the settlers, by inviting them to partake of food poisoned beforehand. Deplorable as this is, the atrocities of the natives in some measure justified it. No man nor woman either was safe in the vicinity of a native tribe. Marion afterwards paid the penalty of the feud he had created, but not in Van Diemen's Land. He sailed for New Zealand on the 10th of March 1772, and having got into a similar scrape with the natives of that island, himself, four superior officers, and eleven seamen, were slain and eaten by the New Zealanders. It has been customary to call this a massacre, but the author of this volume has conversed with old New Zealand chiefs, who professed to remember this event, and they uniformly asserted that Marion first attacked the natives with wanton cruelty. This is probable—it is a French characteristic in the islands of the Pacific to this day; witness their unprovoked slaughters at Tahiti. The name of a Frenchman is even now held in detestation by the New Zealanders.

In 1773, Capt. Tobias, in the British frigate *Adventure*, made the West Cape, and steered east, close to the rocks called "Matsuyker's" by Tasman; afterwards anchoring in what he took to be Storm Bay, which he called "Adventure Bay"—not the Storm Bay of the present charts, but D'Entrecasteaux Channel, which, running inland for ten leagues, communicates with the true Storm Bay of Tasman.

ptain Furneaux next sailed along the coast of Van

Diemen's Land to the northward, in order to determine whether it was a peninsula joined to the main land or an island. He finally steered for New Zealand, giving it as his opinion that there was no strait between Van Diemen's Land and New Holland. Captain Cook, with H.M.'s ships *Resolution* and *Discovery*, made the south-west cape in 1777, and after steering eastward anchored, as Furneaux had done, in Adventure Bay. Cook, in this voyage, did not discover the insularity of the land. Fifteen years later, the French Admiral D'Entrecasteaux visited the island, but also without discovering it to be such; and this, with the exception of Captain Bligh's visit in the *Bounty* in 1788, and afterwards in 1792, was the last visit of discovery-ships worth noticing.

The most valuable discoveries relative to Australia have, as might have been expected, taken place subsequently to the formation of the various settlements. As the first settlement will always be regarded as being amongst the most important events in the history of the country, and as it is intimately mixed up with subsequent discovery, it will be interesting to glance at this also.

Previous to the independence of our late North-American provinces, it had been the custom of the mother-country to send thither the refuse of her gaols,—a circumstance which remains stamped upon the American moral character to this day, as it will also upon the Australian character for ages yet to come. The success of the United States compelled the home Government to look out for another locality for the disposal of those whom it was inexpedient to keep at home. It so happened that Cook had recommended Botany Bay as an eligible site for the formation of a convict colony. Accordingly, in the year 1786, it was determined that the recommendation should be adopted, and vessels were appointed to convey seven or eight hundred prisoners to the spot selected.

The command of the expedition was given to Captain Arthur Phillip, his second and third in command being Commander Hunter and Lieut. Ball. The fleet consisted of six transp and three store ships, containing 757 convicts—of whom 150 were women, and about 200 troops distributed throughout the ships. This fleet sailed from England on the 13th of May 1787, steering first for Rio Janeiro, from whence were conveyed a number of tropical seeds and plants of the various kinds peculiar to the country. From Rio the expedition sailed to the Cape of Good Hope, again collecting the plants and seeds of South Africa. From the Cape they also took a number of horses, cattle, sheep, goats, and hogs, for the purpose of breeding. On the 20th of January 1788, the fleet anchored in Botany Bay, after a prosperous voyage of eight months, including stoppages.

On arriving at Botany Bay, the ineligibility of the site chosen became apparent. The bay was unsheltered from the prevailing winds, which rolled a tremendous sea on the beach, whilst the adjacent land was a series of swamps, and sterile sand without water. Dissatisfied with the place, and determined not to disembark the people whom he had brought out, Captain Phillip, with some of his officers, took three boats, and set out to examine a harbour, which had been called by Cook "Broken Bay." Whilst on his way thither, he resolved to examine an inlet which, in Cook's chart, was marked as a boat harbour, apparently so insignificant as not to have been worth investigating. The surprise of Captain Phillip may be conceived on finding himself at once in one of the finest harbours in the world,—on the shore of which now stands the city of Sydney.

The anecdote told of Cook having overlooked this harbour is worth relating. One day, whilst the great navigator was at dinner in his cabin, a seaman of the name of Jackson happened to have the look-out at the mast-head, and seeing the narrow opening now termed "Sydney Heads," forthwith announced a harbour on the larboard beam. The intelligence was duly conveyed to Captain Cook, who was in no great hurry to quit his dinner, and when he did so, the entrance to the harbour, from the speed with which the ship was going through the water, had become nearly shut in. Being unable to see any of the indications which would have led him to suspect the presence of a harbour of any magnitude, Captain Cook is said to have soundly rated the seaman at the mast-head for his false report; whilst the man as firmly adhered to his statement. Well, said the commander, with a sneer, "we will call the harbour by your name, 'Port Jackson;'" and as Port Jackson it was marked in the ship's log, with the additional appellation of "boat harbour." The vigilance of the seaman was thus unconsciously rewarded by his name becoming immortalized.

On the re-discovery of the harbour of Port Jackson by Captain Phillip, he lost no time in removing the fleet from its precarious anchorage in Botany Bay, and the colony was founded on the 26th of January 1788. The site chosen was on the banks of a small stream of fresh water, now known by the name of the "Tanks," a series of which have been constructed for the purposes of the city. This stream runs into the cove now termed Sydney Cove,—the name of Sydney having been given by Captain Phillip to the new settlement, in honour of Lord Sydney, the first lord of the Admiralty at the period of the preparation of the first expedition; his lordship having greatly exerted himself in causing the stores and other necessaries for the fleet to be put on board in the best condition, and having otherwise promoted the object in view by every means in his power.

The magnificent harbour thus chosen is, in fact, a vast collection of harbours, scattered on either side of an inlet running about eighteen miles up the country, and terminating in what is now termed the Paramatta River. These harbours—or coves, as they are locally termed—have an unobstructed channel in the stream, and are in number nearly one hundred, being formed by narrow necks of land, which for the most part project in such a manner as to shelter them from all winds. The cove selected for the site of the new settlement is about seven miles from the heads, and was chosen as being the smallest, and therefore the most convenient; the water partaking of the character of a lake, deep to the very shore. Other coves are now occupied by the increasing commerce of Sydney, especially one named Darling Harbour.

It is something to be wondered at why so experienced a navigator as Cook should have held a worthless harbour like Botany Bay in such high estimation; for from Captain Phillip's time to our own, no one has ever thought it worthy of being turned to nautical account. The only way of accounting for this is from the comparatively small size of Cook's ship, and the fine weather he experienced during his short stay. Had he encountered an easterly wind whilst there, his opinion would have been widely different. But all his party had evidently made up their minds to be charmed with the place, as being their first landing-place after so tedious a voyage. The naturalists especially looked upon it with favourable eyes, though, had these gentlemen made an excursion of some five or six miles to the summit of the low hills which divide it from Port Jackson, they would have seen the latter spread out before them in all its grandeur, and the "man at the mast-head" would never have become famous.

Before the removal of the fleet from Botany Bay to Sydney Cove, the new comers were gratified by the arrival of the French ships *Boussole* and *Astrolabe*, under the command of the celebrated navigator La Perouse. These remained nearly two months in the interchange of mutual civilities, when the ill-fated La Perouse quitted on the voyage from which he was never destined to return, both vessels having been lost on a coral reef in the vicinity of the Manicolo islands.

To return to Captain Phillip and his young colony. On the 27th of January, every man of the fleet was at his post, and for the first time the forest resounded with the axe of the woodman. The places for the various buildings were marked out by Captain Phillip himself, who was a man of extraordinary energy, and whose memory is cherished by the colony to this day beyond that of any of his successors, with the exception, perhaps, of Governor Macquarie. The ground was rapidly cleared, tents pitched, and the live stock landed. The latter is worthy of notice by way of contrast with a subsequent enumeration of the live stock in the colony. It consisted of one bull, four cows, one bull calf, one stallion, three mares, and three colts. In 1848, just sixty years afterwards, the live stock of the colony consisted of 88,126 horses, 1,430,736 head of horned cattle, 46,000 pigs, and 7,906,811 sheep, producing for the home manufacture upwards of twenty millions of pounds of wool annually. In the same period, one of the finest cities in our colonial empire sprang up where the forest and the swamp previously reigned supreme.

The 7th of February 1788 was the day appointed for establishing the government—a stringent one, as the character of the governed demanded—yet one which held out every inducement to the reformed convict; and such was the beneficial effect of this, that instances were not afterwards wanting of some of them having acquired an amount of wealth even beyond the aspirations of the most successful European merchants. In order to give all possible solemnity to the reading of the new law, a place had been cleared, and every one was mustered to hear the Governor's commission for establishing the necessary courts. For this purpose the military were drawn up under arms, and the prisoners placed apart by themselves, whilst the principal officers ranged themselves round the Governor.

The Commission was read by the Advocate-General, W. D. Collins, and appointed Captain Phillip Captain-General and Commander-in-Chief over the territory of New South Wales, which was defined to extend from the North Cape, or extremity of the coast, called Cape York, in south latitude 10° 37′ to the southern extremity of the said territory, or South Cape, in latitude 43° 39′ south; and of all the country inland as far to the westward as 135° of east longitude, reckoning from the meridian of Greenwich, and including all the islands of the Pacific Ocean adjacent within the aforesaid latitudes.

After this was read, the Act of Parliament establishing the courts of judicature—and the patents, under the great seal, authorizing proper persons to hold the said courts. At the conclusion of the ceremony three volleys were fired by the troops under arms, and the young nation—born, it is true, of somewhat questionable parentage—was launched on its future career, though no one then present dreamed of the rapidity of its growth, or the self-contained wealth—industrial and natural—which has contributed, and is contributing, to raise it as one of the greatest monuments of Anglo-Saxon enterprise.

After the establishment of the English colony, the coasts which had been unvisited by Englishmen were diligently explored; and one of the first fruits of this was the discovery, in 1798, by Bass and Flinders, of the strait which separates Van Diemen's Land from the mainland of Australia, the strait being called by the name of the former. As this discovery arose from perhaps one of the most arduous enterprises ever undertaken and accomplished, our *resumé* of Australian discovery would be incomplete without a narration of the circumstances.

Mr. Bass was the surgeon of the *Reliance*, and Lieutenant—afterwards Captain—Flinders started with him on a survey of the iron-bound coast of Australia, in *a boat only eight feet long!* to which had been given the appropriate name of *Tom Thumb*. The crew consisted of these two gentlemen and a boy only. Finding their little craft somewhat too circumscribed for active operations, Bass contrived to procure a whale boat, six men, and six weeks' provisions;—in this cockle-shell, in tempestuous weather, he explored the coast for 600 miles, at length entering what Furneaux and others, as we have seen, considered a deep bay. He had not gone far before the outline of the coast convinced him that there was a strait between Van Diemen's Land and New South Wales. To explore this fully with his inadequate means was out of the question. He therefore retraced his perilous voyage to Sydney, when Governor Hunter was induced to verify his observations, by sending Lieutenant Flinders and himself in the colonial schooner *Norfolk*, of only twenty-five tons burthen. With this little vessel they sailed through the strait, now called Bass's Strait, and afterwards circumnavigated Van Diemen's Land, thus demonstrating its insularity.

As a principal feature in the early history of the colony, this perilous voyage must not pass unrecorded. The explorers sailed from Sydney on the 7th of October 1798. On the 11th they anchored in Twofold Bay, which they quitted on the 14th. On the 17th, they discovered Kent's Islands, and a number of others. On the 1st of November they were off Cape Portland, and on the 4th they entered Port Dalrymple, the embouchure of the Tamar, in lat. 41° 12′ S. Here they spent sixteen days in examining the harbour, the river, and the adjacent country, with the luxuriant vegetation of which they were agreeably surprised. Black swans were so numerous in this harbour, that they counted 300 within the space of a quarter of a mile. On the 20th of November, the *Norfolk* quitted Port Dalrymple, and rounding Circular Head and Three Hummock Island, they subsequently found the coast to lie to the south. No land was to be seen to the northward, and a long swell was perceived to come from the south-west. This appearance was hailed by the explorers with satisfaction, as announcing to them the completion of the discovery of a passage, into what was termed the Southern Indian Ocean. Albatross, Barren, and Hunter's Islands, were next examined; and, on the 9th of December, Cape Grim, the north-west cape of Van Diemen's Land, was seen. On the 11th they were off the west point of the island. On the 13th, they passed the south-west cape. They afterwards followed the coast, till they had completely established the fact of the insularity of the land, and again reached Sydney on the 11th of January 1799. If we take into account the extent of this voyage, its dangers, and the scanty means with which it was successfully accomplished, the feat places Bass and Flinders in the first rank of those skilful and daring seamen who have secured for their country no less honour than territory.

With the more modern discoveries it is necessary to be brief.

In 1800, Grant discovered the coast to the westward of Bass Land as far as Northumberland. This portion bears, at present, the name of Grant's Land. The first constructor of an Australian map was John Oxley, the surveyor-general of the colony. His expeditions in 1815, undertaken by order of the government—which expeditions furnished the materials for his map, are the only explorations of the period accompanied by authentic records. He completed the discovery of the chain of mountains, called the Blue Mountains, ranging from north to south; and which, dividing the eastern from the western waters, constitute the most prominent features in the configuration of the country.

Captain Sturt went still further to the westward, and discovered the River Darling, which he left running to the south-west, in latitude 30° 20′ S. and longitude 145° 30′ E. In 1830, Captain Sturt again set out from Yass Plains, in a westerly direction; and keeping along the banks of the Murrumbidgee, he discovered its junction with the Lachlan. Descending this, he came to a second confluence with a river from the south-west, to which he gave the name of the Murray; this stream is about to play an important part in the commerce of South Australia and Victoria. Still farther, in latitude 34°, he found a third confluence, formed by a river from the north-east, having all the appearance of the Darling, which he had left in latitude 30°. From this last junction he followed the course of the river to its embouchure in Lake Alexandrina and the sea, this being the farthest point which had been reached by an overland journey.

In an opposite direction to that pursued by Captain Sturt, the Government despatched' the late Mr. Allan Cunningham, the colonial botanist; who, keeping to the westward of the dividing range, discovered large tracts now occupied by squatters. Mr. Cunningham, after crossing numerous branches of the Darling, succeeded in tracing it to its source, or, rather, to the junction of numerous streams to the northward and westward of Moreton Bay, after which it pursues its own course for 300 miles, not receiving the waters of a single tributary.

Mr. Cunningham was followed by Sir T. L. Mitchell, who between 1832 and 1836 made three expeditions into the interior by order of Government. He penetrated further than Sturt, and met the Darling in latitude 29° south. The discoveries of Sir T. L. Mitchell have proved of great importance, Australia Felix, now the colony of Victoria, being amongst their number, though the existence of a fine country in this direction was previously partially known. In 1846, Sir Thomas Mitchell made a fourth start, which was productive of many valuable discoveries, he having found several large rivers, and a tract of country equal in extent to the United Kingdom, available for every purpose.

The next explorer of importance was the ill-fated Dr. Leichhardt, a German gentleman of science and enterprise, about whose mysterious disappearance on his last journey so many doubts and fears are at present entertained. On his first overland journey, Dr. Leichhardt started from Moreton Bay to Port Essington, the journey occupying thirteen months. The most important results of his expedition were the discovery of numerous rivers, fine districts, and the fact of a communication existing between the east and north-west coasts of Australia. From his second expedition, there does not appear the slightest hope that he will ever return, he having doubtless fallen a sacrifice to his love of enterprise.

In addition to these, Capt. Stokes has added immensely to our knowledge of the hydrography of tropical Australia, as have also Mr. Tyre to the country between Port Phillip and the river Glenelg, Mr. Dixon at Moreton Bay, and Count Strzelecki at Gipps' Land. To these must be added a body of explorers whose services in discovery have been most valuable, whilst in their prosecution they have for the most part created the wealth of the colony, viz., the squatters. By these and other enterprising men, the progress of discovery is even now almost as rapid as ever.

To these territorial discoveries must be added the discoveries of gold in the districts of Bathurst and Victoria, in masses which have no parallel in the history of the precious metals. As this subject will be fully treated in another place, we shall omit further mention of it here.

CHAPTER III.

HARBOURS AND RIVERS OF THE SETTLED PORTION OF AUSTRALIA.

Twofold Bay—Bateman's, Jervis, and Botany Bays—Port Jackson—Broken Bay—Port Hunter—Port Macquarie—Moreton Bay—Rivers—Hawkesbury—Macleay—Clarence—Richmond—Brisbane—Shoalhaven—Manning—Macquarie—Murrumbidgee—Murray—Lake Alexandrina—Darling—Peel River—Harbours of Victoria—Portland Bay—Western Port—South Australian Ports—Ports of Western Australia.

There is a general impression in Europe that Australia is deficient in harbours and navigable rivers. With regard to harbours on its coast line nothing can be more erroneous. It is in interior navigation that the country is found wanting; but even in this respect recent research has discovered that great practical advantages exist, which only require ordinary energy to render internal rivers available to an immense extent of country, which is as yet without the means of any but the most expensive modes of conveying produce to the port of shipment.

The colony of New South Wales contains an abundance of excellent harbours, into which some considerable rivers disembogue themselves. The best way, perhaps, of giving to the general reader a knowledge of the hydrography of this portion of Australia, will be to lead him from Cape Howe, at the southern extremity of the colony, to Moreton Bay, near its northern boundary, notifying the principal rivers only, as they fall into the various estuaries in which they join the ocean

1. *Twofold Bay* is situated in the county of Auckland, 240 miles to the south-west of Sydney, and thirty from Cape Howe. It was discovered in 1798 by Mr. Bass, when exploring, in an open boat, the coast to the southward of Botany Bay. It is an excellent harbour, affording safe anchorage, and is protected from all but easterly winds. Flinders, who was here with Bass, named one of the coves Snug Cove; it is large enough to afford anchorage for half a dozen vessels. This is interesting from its having afforded shelter to Bass during his daring exploration. A township has been formed here named Eden; but from there being no fresh water, and from the anchorage being exposed to south-west winds, it has made but little progress.

A cove situated on the south shore of Twofold Bay affords perfect shelter for vessels, and here is situated the town of Boyd, which is already a flourishing port, and being the harbour to the Maneroo country, now known to abound with gold, must become a place of considerable commercial importance. Point Brierly, about a mile from the township, has a particular interest attached to it, as being the point off which Captain Cook lay to on the night of the 20th April 1770, after having first made the land of New South Wales, near Cape Howe.

Twofold Bay has long been known as a port from which a large number of sheep and cattle have been shipped to neighbouring colonies, especially New Zealand. These have all been bred in the Maneroo country, chiefly by its discoverer, Dr. Imlay. Mr. Boyd has extensive whaling establishments here, and eventually the port must become a formidable rival to Sydney itself, not only from the abundance and value of its produce, but from its position with regard to the principal ports of the neighbouring colonies. It is already the general rendezvous of all steamers plying from the metropolis to the southern settlements, and is flourishing beyond the expectations of those who founded the settlements on its shores.

2. *Bateman's Bay*, in the county of St. Vincent, in latitude 36 degs. south, 170 miles from Sydney. It receives the waters of the Macleay river, which divides the district of Macleay from the county of Macquarie. On its banks is a great extent of available land. The town of Kempsey stands on this river, which receives also the waters of the Clyde.

3. *Jervis Bay.*—A fine harbour in the county of St Vincent, situated in latitude 35 degs. 6 min. south. The entrance to the bay is two miles wide, and the harbour extends for about twelve miles inland. The port, which is about eighty miles from Sydney, is easy of access, safe, and commodious, affording shelter from all winds, and having room for 200 sail of ships, with plenty of wood and water. Jervis Bay was discovered by Lieutenant Bowen in 1791.

4. *Botany Bay*, in the county of Cumberland.—This was the first spot at which Captain Cook landed on the 28th of April 1770, early on the morning of which day he anchored under the south shore, about two miles from the entrance. The harbour lies in latitude 34° S., long. 151° 14′ E., and is about five miles long. It is fourteen miles to the southward of Sydney Heads, and is wide, open, but unsheltered for vessels, which was the reason why Captain Phillip rejected it as the locality for the first colony, as narrated in the preceding chapter. The bay receives the waters of Cook's and George's rivers, but is of no account as a shipping harbour, the few advantages it has being eclipsed by its magnificent rival Port Jackson. The country in the vicinity of the bay is remarkable for its sterile appearance, and yet for the diversity of its vegetation, from which the naturalists of Cook's expedition gave it the name of Botany Bay. Beyond the interest attached to it as the originally destined locality of the first settlement, the harbour is not entitled to much consideration.

5. The next harbour to the northward is the far-famed *Port Jackson*, so called, as previously narrated, from a seaman c

Cook's ship, the *Endeavour*, who descried it from the masthead, but whose report concerning it was disregarded by the great navigator. This harbour, in point of beauty and capacity, is, perhaps, unequalled. Thousands of ships might be anchored in security within its compass, and so sheltered is every part by natural projections and indentations, that it would be next to impossible for a vessel, possessed of ordinary ground-tackle, to be wrecked. With the exception of a small reef, not far from the entrance, called the "Sow and Pigs," it has not a danger, and even this is not regarded as such, being easily avoided, even without a pilot.

To make Sydney Heads with certainty is no bad test of the skill of a navigator arriving from a long voyage, and the more so if he have approached it from the passage round Van Diemen's Land, instead of that through Bass's Strait, which is the one usually taken. The coast presents a line of iron-bound cliffs, of great height and extent, and it is not till the vessel is nearly approaching these, that the entrance to the harbour, between two of the loftiest, and scarcely two miles wide, can be seen. When once within the heads, the eye of the emigrant, for so many months accustomed to the long monotony of sea, is gratified by a scene of the most exquisite beauty. He feels as though he were in a new world; the tropical character of the vegetation, though the harbour is some degrees from the tropic—the picturesque forms of the islands—the wild cliffs behind him, and the swelling heights in front, covered with elegant villas and pleasure-grounds, looking down on the city stretched along the shores of Sydney Cove—all combine to impress him with a sense of the importance of the capital of the southern world, in itself a wonder; for little more than sixty years ago, the spot where the beautiful city now stands was a sandy desert, encircled by huge forests, as savage as were their untutored inhabitants; whilst the waters of the port, now teeming with ships and boats without number, were gazed on by a race which had not reached the degree of intellect sufficient to lead them to the construction of even a canoe.

On passing the North and South Heads, different points of land, called Middle Head, George's Head, Bradley's Head, &c., present themselves, and the voyager now sees the many bays of great extent, which open to view on either side, the main stream serving as an approach to their friendly shelter. These, again, are flanked by islands which serve as natural breakwaters, as Garden, Pinchgut, Clark, Shark, Goat, Johnson's, and Cockatoo islands. These bays continue on either side for a long distance up the estuary, which at about twenty-five miles from the heads narrows into a creek, called the Paramatta river, from the town of that name located on its banks. The distance between Sydney and Paramatta is about eighteen miles, and numerous steamboats ply between the two places, the latter of which may be regarded as the Gravesend of the former. As our present purpose is merely an outline of the coast harbours, we shall reserve further mention of this magnificent harbour till we come to treat of its commercial importance.

6. *Broken Bay* divides the counties of Cumberland and Northumberland. It was discovered by Capt. Cook, and was deemed, by Capt. Phillip, a fit place for the reception of the first colonists, had he not discovered Port Jackson on his way to explore it. The south head is visible from the Sydney lighthouse. This bay is much exposed to east, south-east, and north-west winds. Broken Bay forms the entrance to Pitt Water and Brisbane Water, the former constituting its southern branch. The latter is twelve miles long by seven wide, and receives the waters of the Erina and Narrara creeks, the former flowing into it at the town of East Gosford. This district supplies Sydney with a large quantity of timber for building purposes.

7. *Port Hunter*, formerly called Coal River, is the port of Newcastle, the capital of the great coal-mining district of New South Wales. It is about eighty miles to the northward of Sydney harbour, and its entrance is sheltered by Coal Island. It is a port of considerable trade.

Port Hunter receives the waters of some considerable streams, the principal of which is the Hunter River, so named in honour of Governor Hunter, during whose administration the river was discovered. It rises on the Liverpool range, and has a course of about 200 miles. It is, however, navigable for about thirty-five miles only. About twenty miles from Newcastle, the Hunter River receives the waters of the Williams River, which rises on the Mount Royal range; and at the head of the navigation it receives another called the Paterson, at the town of Hinton. Both these last named rivers are navigable for a greater distance than the main stream. The fertility of the soil on the margin of these rivers, together with the extent of water communication, renders these districts amongst the finest in the colony.

The Hunter River also receives the Goulburn, which is an aggregate of the waters of many lesser streams, among which are the Munmurra, Crui, Bow, Gummum, Halls, Giants, Widdin, Wolar, &c. It empties itself into the Hunter at the south-west angle of the county of Durham.

Near the head of the navigable part of the Hunter River is the town of Morpeth, twenty-nine miles from Newcastle. Throughout the greater portion of the year, there is a communication daily, by steam, between this place and the metropolis. Coal mines have also been opened here, and a considerable trade is carried on with Sydney.

At the junction of Wallis Creek with the Hunter River stand the towns of East and West Maitland, about twenty miles from Newcastle, two from Morpeth, and 127 from Sydney. West Maitland, in particular, is a large and thriving place, and has an extensive manufactory of colonial tobacco, which is rapidly approaching American in quality.

8. *Port Stephens* is a fine harbour, situated in the county of Gloucester, in lat. 32° 40′ S. It is a large estuary, about fifteen miles in length, contracted near the centre to about a mile in width. The entrance to the harbour is much impeded by sand-banks. At the north-west corner Port Stephens receives

the river Karnah, on which river, at the distance of about twelve miles up, stands Bourral. It receives, also, the waters of the Myall, which here expands into a lake of the same name. On the northern bank of the harbour stands Carrington, the capital of the county of Gloucester,—a neat little town about 100 miles from Sydney.

9. *Harrington Inlet* is the northern entrance to the river Manning, in the county of Macquarie. It was so named by Mr. Oxley, in honour of the Earl of Harrington. The Manning, so called in honour of the Deputy Governor of the Australian Agricultural Company, is in lat. 32° S., where it forms a kind of delta, with but an indifferent harbour in any of its mouths. The adjacent country is very beautiful, and the soil fertile, so that it has attracted a considerable number of settlers. This river has its rise in the dividing range of hills, near where the Peel River flows into the interior. The Manning is about 220 miles from Sydney.

10. *Port Macquarie.*—A large harbour, about 220 miles to the north-east of Sydney, which was discovered by Mr. Oxley, and named by him in honour of the governor. It receives the waters of the river Hastings, so named by Mr. Oxley after the Governor-General of India. The country bordering on the Hastings is richly diversified with hill and dale, and abounds with timber. To the north-east, the river opens into reaches of great width and beauty, extending to the sea. To the north and south-east are some extensive lagoons, which have a communication with the ocean.

11. *Trial Bay*, in lat. 30° 51′ S., lies at the northern extremity of the county of Macquarie, and receives the waters of the Macleay.

12. *Shoal Bay* is situated in the Clarence River district, in lat. 29° 25′ S. Steamers ply between this place and Sydney. Clarence River is navigable for upwards of eighty miles, and rises in the dividing range near Ben Lomond. Drayton is the chief place on this river.

13. *Moreton Bay* is a large sheet of water in the county of

Stanley, extending from north to south more than sixty miles. It lies between the 27th and 28th parallels of south latitude, and is accessible for ships of large size by two different channels, the one to the north and the other to the south of Amity Island, at the entrance of the bay. Moreton Bay is defended from the sea by Stadbroke Island and a projecting headland, there are eighteen feet of water over the bar, and many islands, shoals, and banks inside, with numerous channels between them.

Moreton Bay receives four navigable streams,—the Brisbane, Logan, Tweed, and Scott rivers. The Brisbane enters the bay from the westward towards its southern extremity, the entrance being concealed by a small island, called Bird Island. There is a bar at Amity point, at the mouth of the river, which vessels of considerable draught of water cannot pass. The source of the river is in the mountain ranges to the northward, but it receives considerable streams in its course, which, together with the main river, traverse a large extent of country. The tide ascends fifty miles above the mouth of the river, flowing also up the southern branch, the Bremer, on which stands the town of Ipswich. The capital of the district is Brisbane, on the river of the same name.

Port Hacking.—A beautiful harbour, situated in the county of Cumberland, about eighteen miles to the southward of Sydney Harbour. It was so named from the pilot who discovered it.

The above are the principal coast harbours of New South Wales, and are spread over about ten degrees of latitude. There are numerous minor havens, a description of which would be of little interest to the general reader.

RIVERS OF NEW SOUTH WALES.

As has been previously observed, the whole of Australia, and New South Wales in particular, is deficient in internal naviga-

m. This is the great drawback to the cultivation of wool in the interior, the expense of carriage to the ports of shipment forming a serious drawback to the profits of the squatter, by which class by far the greater proportion of wool is produced.

Some of the rivers have already been mentioned, in connection with the estuaries into which they disembogue. Others are chiefly as follows:—

The Hawkesbury, in the county of Cumberland, empties itself into Broken Bay. The town of Windsor is built on its banks, at the distance of thirty-five miles from Sydney, and twenty miles from Paramatta. The town stands at the confluence of the south creek with the Hawkesbury River, though from the tortuous character of the latter it is 140 miles from the sea. The river is navigable for vessels of 100 tons burthen for four miles above Windsor. The town is elevated about 100 feet above the river, which here flows between noble overhanging cliffs, some of which are 600 feet in height. The Hawkesbury is a continuation of the Nepean River, after the junction of the latter with a considerable stream, called the Grose river, which issues from a remarkable cleft in the Blue Mountains, in the vicinity of the town of Richmond.

The Macleay rises in the dividing range, and enters the sea at Trial Bay, and its borders may be traced far up through the mountains to the table land of New England. There is a bar at its mouth, but it is navigable for coasting vessels for a distance of thirty-four miles. After passing several secondary streams, the valleys, separated from that of the Macleay by ranges of hills, are watered by the Odalberree and the Bellengen. In the course of the Macleay river there are several large cataracts. One of these, from the accounts given of it, must be of great magnitude, the whole river falling from a height of 250 feet.

The Clarence rises in the dividing range near Ben Lomond, flows through the Clarence district, and empties itself into the Pacific, near Shoal Bay, in south latitude 29½°. It is navigable for upwards of eighty miles for steamers, whilst some craft ascend for ninety miles from its mouth. This is one of the finest rivers yet discovered in Australia, and from the richness of the country through which it flows, must one day become of great commercial importance. The country around is remarkable for the excellence and beauty of its timber; the cedar ranking first among its vegetable productions. Large sums have been given in London for some logs of cedar from this district, for the most expensive kind of cabinet-work, in which it often surpasses the best specimens of mahogany.

The Clarence is obstructed by a bar, yet surpasses all other Australian rivers in the breadth and volume of its waters; its reaches, too, being longer and wider than those of any other river on the coast. As a grazing district, the country through which it flows is of a high order, being, in addition to its fertility, for the most part level; and even the mountains do not attain any great elevation, except at the sources of the streams. A great number of squatters have stations at the Clarence River. The communication between the table land along the main range and the navigable estuary is easy, and wool drays can descend with facility from Beardy Plains, the table land opposite the sources of the river, to that part of the river where vessels take in cargo for Sydney.

The Richmond is another river of the Clarence district, entering the Pacific to the southward of Lennox Head. The general character of the country on this river presents slightly wooded grassy forest of the greatest fertility. There are few rivers in Australia in which so much good available land exists unbroken by densely wooded ranges and ravines. The low flats near the mouth of the river are covered with mangrove scrubs, tea tree, and the swamp oak, but the alluvial land higher up is diversified with brush, abounding in cedar and pine, clumps of bangola palms, reedy swamps, small rich plains, and lightly wooded forest flats of great richness.

The Brisbane.—This river falls into Moreton Bay, previous to the termination of its course receiving the waters of the Logan, Tweed, and Scott. The Logan rises on Mount Lindsay, in the Clarence River district, and flows through the county of Stanley, emptying itself into the southern passage of Moreton Bay. The Brisbane was discovered in 1823, and has its source in the mountain ranges to the northward. This river traverses a large extent of country, which produces almost everything that can be required by the settler. The banks of all these rivers resemble those of the Clarence and Richmond, and their scenery is eminently beautiful. They are already occupied by squatters, to a considerable extent, but in the interior have the disadvantage of being infested by troublesome natives. The district abounds with all the useful minerals, as limestone, coal, and iron. To Moreton Bay will be brought the wool from Peel's Plains, Darling Downs, Byron's Plains, &c., the descent being easy, and the cargoes can be shipped direct either to Sydney or England. The Brisbane is much infested by sharks, which are here of the most ferocious description, and its banks are more than usually productive of venomous snakes, mosquitos, marsh leeches, stinging ants, &c.

Shoalhaven River, in the Maneroo district, rises in a swamp near Corrumburoo, about 100 miles from Sydney, and flows through the counties of Murray, Argyle, Camden, and St. Vincent, disemboguing into the sea at Cooloongatta, thirty-five miles below Wollongong. At the distance of about twenty-six miles from Lake Bathurst, the river passes through some remarkable ravines of from 500 to 1,500 feet in depth. These are termed the Shoalhaven gullies.

Manning River, so named in honour of the Deputy-Governor of the Australian Agricultural Company, divides the counties of Gloucester and Macquarie, and has a long course westerly to the dividing range of hills, from the opposite side of which the Peel River is given off to flow into the interior. It empties itself into the Pacific in 32° south, and has but an indifferent entrance. The country on the banks of the Manning is fertile, and this, with the beauty of the scenery, has caused many settlers to locate themselves along its course.

Hastings River disembogues itself into Port Macquarie, which has been already spoken off. The country bordering on the Hastings is rich, being a pleasing undulation of hill and dale, and well timbered. Towards the north-east the river opens out into reaches of great beauty. A few miles to the north and south-east are some extensive lakes which have a communication with the ocean.

The Turon is an interior river, rising near Cullen Cullen, and flowing through the counties of Roxburgh and Wellington. It flows into the Macquarie River. It is remarkable as being the principal seat of the New South Wales gold mines.

Maria River, in the county of Macquarie, empties itself into the Hastings, at St. John's Plains, about a dozen miles from Port Macquarie. It is navigable for forty miles, and has on its banks a large extent of available land.

The Bremer, in the Moreton Bay district, is a considerable branch of the Brisbane. The town of Ipswich stands on its banks.

The Wollondilly, upon which stands the town of Goulburn, at its junction with the Mulwaree. This stream receives the Cox's River, near the junction with the Warragamba, and afterwards flows into the Nepean.

Hunter River.—Vide Port Hunter.

Maria River, in the county of Macquarie, empties itself into the Hastings River at St. John's Plains, about fifteen miles from the town of Macquarie. It runs in a north-westerly direction, and is navigable for about forty miles from its mouth. There is a large extent of available land on its banks. The Wilson River joins the Maria.

The Macquarie River is formed by the junction of the Fish and Campbell rivers, after they issue from the Blue Mountains, near the counties of Bathurst and Westmoreland; the source of the Fish River being in the high mountains to the westward of Burragorang. The Macquarie winds through the plains to the north-west, after its junction with the Campbell. In some places it is navigable, but in others obstructed by rapids and falls. After running for a considerable distance, it expands over the surrounding country, the whole area becoming a sea. Below this the channel again becomes apparent, and winds through a vast mass of reeds, when suddenly it again spreads over the country, the water running with the same rapidity as when flowing through narrow banks. The Macquarie has been found, by Sir T. L. Mitchell, to join the Darling in about latitude 30° south, long. 147° east.

The Paterson, in the county of Durham, flows into the Hunter at the town of Hinton. It was thus named after Colonel William Paterson.

Page's River rises on the Liverpool range, and running through the county of Brisbane, flows into the River Hunter at Segenhoe.

The Murrumbidgee rises on the western ridge of the dividing range of mountains, in the district of Maneroo, about 250 miles south-west of Sydney. It pursues a long and tortuous course for upwards of 500 miles, without receiving any increase from the country which it waters. It expands itself over the country into the marshes of the Lachlan, in about 34° south, long. 144° east. The country which it traverses is very fine, and abounds with all the requisites for supplying millions with all the comforts which civilization can require.

The Lachlan rises in the Cullarin range of mountains, which divide the counties of King and Argyle. After running a north-westerly course, it expands into a vast area of marsh, where it is joined by the preceding river. During a great part of its course it is navigable for large boats, at 200 feet above the level of the sea. Near Mount Talga it receives the waters of the Goobang, which rises near Mount Laidley.

The Murray can scarcely be considered a river of New South Wales, though a part of its own course and of its tributaries belong to that province. It rises in the Australian Alps, receiving in its course the Mitta Mitta, near the town of Albury, the Ovens, the Twisden, the Murrumbidgee, and the Darling. It empties itself into Lake Alexandrina, in the province of South Australia.

The Murray was so called by Captain Sturt in compliment to Sir George Murray, who, at the period of its discovery, presided over the Colonial Department of the State. This river is the longest in Australia, having a course of from 1,300 to 1,500 miles. It passes, in a great part of its course, between high cliffs of sand and clay, whilst in other places it is skirted by a broad belt of brush and forest, with occasional flat plains on either side, but of too arid a description for pastoral purposes. The variations of the stream, according to the wet and dry seasons, are very great. Like that of many other rivers of Australia, its course frequently consists of a succession of lagoons or small lakes; these are the natural results of a water-system which is liable to be reduced in the dry season. It receives the first addition to its waters from the eastward in the month of July, and rises at the rate of about an inch a day till December, in which month the Murray attains a height of about seventeen feet above its lowest or winter level. As it rises, it fills in succession all its lateral creeks and lagoons, and its flats are laid under water. The natives look to this periodical flow with as much anxiety as the Egyptians to that of the Nile, but for a very different reason; the aborigines of Australia have not had the intellect to turn their river to any purpose of cultivation. The utmost extent of its blessings to them is, that it resuscitates myriads of crayfish on which they may regale.

The lake into which the Murray disembogues is shallow, and year by year becoming more so. From this cause it has always a heavy rolling surf, which much adds to the difficulty of navigation. It is said that the lake is rapidly filling up, and that as it fills up, the channel of the river will become easier of access, and there seems reason to suppose that this will be the case, and that thus the river will one day become important in a commercial point of view.

Lake Alexandrina, so called by Captain Sturt in honour of her Majesty, is sometimes called Lake Victoria for the same reason. It lies immediately to the eastward of the Gulf of St. Vincent, and disembogues into the sea at Encounter Bay, by two mouths called the eastern and western entrances. Its length is sixty miles, and its breadth from thirty to forty. Its depth generally is only a few feet. There is a large bight in it to the south-east, and a beautiful and extensive bay to the north-west.

The Darling is formed by the junction of numerous streams from the westward and northward of Moreton Bay, draining a tract of country lying to the westward and northward of the 27th degree of south latitude, and uniting finally with the waters of the Murrumbidgee and Murray, just spoken of. It was discovered by Captain Sturt in 1829. In the course of 300 miles the Darling does not receive a single stream from either side.

The Bogan, in the Wellington district, rises in Hervey's Range, some of its streams issuing also from the less elevated country between the Lachlan and Macquarie. It flows north-westerly, and empties itself into the Darling near Port Bourke, receiving in its course the Bullock River and Tandoga Creek. The uniformity of the Bogan, from its rise to its junction with the Darling, is remarkable. In a course of 250 miles no change is observable in the character of its banks, or the breadth of its bed.

The Nammoy, or *Peel River*, is situated in the district of Liverpool Plains, and joins the Darling at Poekataroo. It receives the Castlereagh River.

The above are among the principal rivers of New South Wales, the lesser streams being innumerable. Attempts are being made to render the Murray navigable, by placing steamers upon it; but though a considerable reward has been offered by the South Australian Government for the first successful attempt, no one sufficiently enterprising has been found to claim the honour or the reward.

From what has been stated, it will be seen that New South Wales, instead, as is generally supposed, of being comparatively destitute of rivers, is really as well furnished with them as most other countries in similar latitudes. In 1846, no less than 150 were discovered. The progress of discovery is still rapidly going on, and numerous rivers have yet, no doubt, to be developed.

Many other rivers, besides those here spoken of, will be mentioned when we come to treat of the territorial division of the country.

The principal harbours worthy of note in the province of Victoria are Port Phillip, Portland Bay, and Western Port. Port Phillip may be more properly called a gulf, varying in breadth from 20 to 60 miles, and embraces an extent of 875 square miles of open water. The port was discovered in 1802 by Lieut. Murray, and was afterwards visited by Captain Flinders. The entrance to this magnificent sheet of water is, like that of Sydney harbour, narrow, being scarcely two miles in breadth, and much even of this is occupied by the rocks lying off Point Nepean, and by shoals on the opposite side. The depth of the gulf, form the head to the innermost anchorage, is about 40 miles. On the western side of the port the bay opens into a long navigable arm, upon which the town of Geelong is situated. It runs nearly east and west, and contains, like the outer bay, an admirable anchorage at its farther extremity. The harbour of Geelong is of easy access to ships at almost all times, whereas they are frequently detained for days before they can arrive at Melbourne, on the banks of the Yarra Yarra, which empties itself into Hobson's Bay.

Portland Bay was discovered by Lieut. Grant, and was so named by him in honour of the Duke of Portland. It is the outlet of a considerable squatting district. The principal rivers which flow into this harbour are the Fitzroy, the Surrey, the Shaw, and the Hopkins.

Western Port is a beautiful harbour, and is formed by Grant and French Islands. It was named Western Port by Mr. Bass, from its relative situation with regard to Sydney, it being at the period of the discovery the westernmost extremity of the straits known on the north side. The harbour consists of two bays, which lie one within the other in a remarkable manner, the inner one being nearly filled up by French Island, whilst the outer is sheltered by Grant Island, which stretches across it almost from point to point, leaving a wide channel on the west side, but an indifferent one on the east. In consequence ot this formation, the harbour on the east side of Grant Island forms a canal half a mile wide, with a depth of from six to seven fathoms. The shores of the harbour are very beautiful; and as this portion of Australia gains in population, the port must become one of considerable commercial importance.

The district of Western Port contains an abundance of land of the first quality. The country about Bass's River, which enters the port from the northward, consists of rich alluvial soil, and that extending towards Wilson's Promontory, is described as being the finest ever beheld, resembling the park of a country-seat in England, the trees standing in picturesque groups, over the rich meadow lands. The extent of grazing land in this district is very large, and of the finest quality, and the geniality of the climate covers it with exuberant vegetation. The Port abounds with fish, and the adjacent country possesses an inexhaustible supply of coal.

The harbours of South Australia are equally good with those of the adjoining colonies. They are chiefly comprised within the large bays termed Spencer's Gulf and Gulf St. Vincent. Port Adelaide is an inlet from the latter, and the landing place is situated about seven miles north-west from Adelaide. Near this is the roadstead called Holdfast Bay, the anchorage of which is excellent, but it is much exposed to south-westerly gales, which blow here with great violence. From the excellent nature of the holding ground, there is no danger to well-formed vessels, as they must drag their anchors two miles up hill before they could sustain any damage. Another port in Spencer's Gulf is Hardwicke Bay, which runs for a considerable distance into York's Peninsula. Port Lincoln is another branch of the same gulf, and is rapidly rising into importance. The other harbours of the colony are not of mu account; they are principally as follows:—Sleaford Bay, Avoid Bay, Coffin Bay, Anxious Bay, Streaky Bay, Smoky Bay, Denial Bay, Fowler's Bay, Lacepede Bay, Guichen Bay, &c.

The principal ports of Western Australia are, King George's Sound, Cockburn Sound, Shark's Bay, and Doubtful Island Bay. Besides these there are a considerable number of estuaries, there being no less than ten between King George's Sound and Swan River. These are usually from five to ten miles in length, and from two to three in breadth. The streams which run into some of these are considerable, and will, when the colony is more fully occupied, afford water communication to the inhabitants. In the summer season the water in them is salt, but becomes fresh after the rains.

King George's Sound was discovered by Vancouver, and was named by him after George the Third. It is an excellent harbour, but being situated to leeward of Cape Leuwin, in the vicinity of which strong westerly gales prevail, it will not rise to eminence as a port until the establishment of a connected system of steam navigation with India and the Archipelago, when this harbour will take high rank among the ports of Australia. The strong winds—as is experienced on the extreme point of South Africa—do not blow home, as it is termed by seamen; so that between the strength of the winds and the land, there is generally a belt of comparatively smooth water close in shore, which steam can traverse with the greatest facility, though sailing vessels within the same belt would not only make no progress, but would run imminent danger of being wrecked, from their inability to work off a lee shore. The town of Albany is situated on King George's Sound.

Swan River, on which stands Perth, the capital of Western Australia, and the towns of Freemantle and Guildford, was discovered in 1696 by Vlaming. It discharges its waters into a large bay called Melville Water. This river is subject to disastrous floods, which at times, as is usual with Australian rivers, inundate the lands in the vicinity, and cause considerable damage.

The other harbours of Western Australia are abundant and excellent, but as the portions of the colony in which they are situated are not likely to be occupied for a long period to come, further mention of them here would be useless.

CHAPTER IV.

NEW SOUTH WALES—TERRITORIAL DIVISION.

Extent—Counties—Argyle—Auckland—Bathurst—Bligh—Brisbane—Cook—Cumberland—Gloucester—Hunter—Macquarrie—Murray—Phillip—Roxburgh—Westmoreland—Stanley—Squatting districts.

AUSTRALIA is the name given to the whole of the Southern Continent, or rather island, it being a continent only as spoken of with reference to its opposite neighbour Van Diemen's Land. It is bounded on the north by Torres Straits and the Arafura Sea, which separate it from the Malay Islands, on the west by the Indian Ocean, on the south by the South Pacific Ocean and Bass's Strait, and on the east by the Pacific Ocean. It lies between 10° and 39° of south latitude, and 112° and 153° of east longitude. Its length from east to west is about 2,500 miles, and its breadth from north to south about 2,000 miles. It contains a superficial area of 3,000,000 square miles or 1,920,000,000 acres, a vast proportion of which, however, is not adapted for the residence of man. The extent of coast line is about 8,000 miles. The portion already occupied by colonists is comparatively small, and lies on the west, south, and east portions, forming a continuous chain, or belt, which fringes the vast deserts of the interior. This belt is divided into four distinct colonies: Western Australia, extending to the head of the Australian Bight; South Australia, from the latter point to the Glenelg River; Victoria, formerly Port Phillip, from the Glenelg to Cape Howe; and the parent colony of New South Wales, stretching along the east coast to Wide Bay;

including within these dimensions the district of Moreton Bay, shortly, perhaps, to be erected into a fifth independent colony.

The portion of Australia now known as New South Wales comprised, till recently, all the country lying to the southward of the 26th degree of south latitude, and to the eastward of the 141st degree of east longitude, containing a superficies of 500,000 square miles, or 320,000,000 acres, and having a coast line of about 1,500 miles. From this, however, the recently-formed colony of Port Phillip has been cut off, so that the parent colony has become more circumscribed in its dimensions. The extent of the colony, as at present constituted, is from Moreton Bay on the north to Victoria on the south, including a coast line of about 1,300 miles, and stretching into the interior from 200 to 300 miles, comprising an area three times that of Great Britain. The districts called "settled," including those of Victoria, comprise upwards of 34,000 square miles, or above 22,000,000 acres. Beyond these districts fully a hundred millions of acres are occupied by squatters. There are not under cultivation more than 200,000 acres.

The number of squatting licenses issued is upwards of 1,500, occupying nominally about 45,000,000 acres in New South Wales; and nearly 1,000 in Port Phillip, occupying about 30,000,000 acres. This is, however, less than the real quantity of land over which the stock runs. The quantity of stock in New South Wales, is, in round numbers, 100,000 horses, 500,000 head of horned cattle, and 12,000,000 sheep These numbers must, however, be regarded as approximate only, the real numbers being much more. The accounts given in by the squatters are not likely to be correct, as by giving in an exact return they would materially increase both their rents and assessments, so that, in the official returns of stock, the actual quantity may always be considered to be underrated. Nothing can be more fallacious than these returns; but being considerably under, rather than over the reality, the English reader is in no danger of being misled.

New South Wales is divided into the following counties:—

Argyle, bounded by the counties King, Georgiana, Westmoreland, Camden, St. Vincent, and Murray. It contains about 1,248,600 acres, combined in a length of sixty miles, and a breadth of thirty-six miles. Argyle consists for the most part of extensive ridges, with irregular plains between, and is watered by streams branching from the Hawkesbury and Shoalhaven rivers. It is a highly fertile country, the supply of water being never-failing, even in the extreme summer heats. This renders the plains of Argyle amongst the richest in the colony. The scenery is highly picturesque, and the general effect is heightened by the expanding of the river Wallondilly, which winds through these delightful plains. The county town is Goulburn, which is situated on the banks of the Wallondilly, 125 miles from Sydney. A second town is Marrulan, 108 miles from Sydney. A third is Bungonia, on Bungonia Creek, 125 miles from Sydney. The population is estimated at 5,465. Argyle is a gold-producing county.

Auckland comprehends that portion of New South Wales which is bounded by a line running from Cape Howe along the boundary of the Port Phillip district, to the point where the boundary crosses the 149th degree of east longitude, thence east to the sea, and thence along the coast to Cape Howe. Auckland is about sixty miles long, and forty broad, containing a superficial area of 1,536,000 acres. It contains 1,200 inhabitants. The chief towns are Boyd, Eden, and Pambula. The beautiful harbour of Twofold Bay, on which Boyd and Eden are situated, is in this county. It contains no rivers of importance, but the country is well watered by numerous streams. Some portion of Auckland is mountainous; the principal elevations being the Wanderer's Range and Mount Imlay, 3,000 feet above the level of the sea. The latter is a well-known landmark when approaching Twofold Bay. The plains of Bega, about twenty-five miles from Boyd Town, are extremely fertile. The geological character of the county of Auckland presents abundant indications of the presence of mineral treasures, especially the Maneroo district, which is now known to abound with gold.—*See Squatting Districts.*

Bathurst.—This county is bounded by the counties of Roxburgh, Westmoreland, Georgiana, King, Lachlan, and Wellington. It is about sixty-five miles in length, by forty in breadth, and contains 1,190,400 acres. The county consists for the most part of broken table-land, in many places forming extensive downs, as Bathurst, Warwick, Kings, Dennis, and Pretty plains. Open downs of this kind, not unlike those in the neighbourhood of Brighton, extend for upwards of 100 miles along the banks of the Macquarie.

Bathurst, independently of its gold mines, is one of the most flourishing counties in the colony. The climate is proverbially healthy, and the country admirably adapted for pastoral as well as agricultural purposes. The flocks produce some of the finest wool in New South Wales, and the stock of all kinds is considerable. It is well watered by numerous streams issuing from the Blue Mountains, so that it escapes the severe droughts with which the country on the coast is sometimes visited. From its many advantages, the county of Bathurst has become the residence of persons of a superior class, and the society is, in consequence, good. It contains the towns of Bathurst and Carcoar. The population is about 6,405.

Bligh is bounded by Brisbane, Phillip, Wellington, and the Liverpool Range. Its length is about eighty miles, and its width forty, containing an area of 1,077,120 acres. The plains of this county are very rich, and comprise Harrison's Plains, Krui Plains, Nandowra Plains, and Wellington Valley. It is well watered, and in some parts mountainous. The chief town is Ailsa, the others are Dalkeith and Montefiore. The population is 1,004.

Brisbane is bounded by the river Hunter on the north-east, from its source to the river Goulburn, on the west by the Krui river, and on the north-west by the Tuiagroo range to the head of the Hunter. This county is about ninety miles by forty, and comprises 1,500,160 acres. The district is for the most part table-land, with occasional peaks and plains, some of the peaks rising to a considerable elevation. Amongst these is Mount Wingen, better known as the Burning Mountain. The elevation of the portion under combustion is about 1,500 feet above the level of the sea. The population is about 1,373.

Camden is bounded by the counties of Cook, Westmoreland, Argyle, St. Vincent, Cumberland, and the sea. Its dimensions are seventy miles by forty-five, comprising 1,400,320 acres. The soil of this county is very superior, consisting of hill and dale, and possessing several large tracts unsurpassed in fertility; especially the one known in the colony as the "Cowpastures." The fertile and romantic region of Illawarra is situated in this county. Some portions are high, and even precipitous; the communication with Sydney being obstructed by a range of precipices. The rivers are numerous, amongst which is the Nepean, one of the most considerable streams in the eastern counties. The county town is Berrima, on the Wingecaribbee, eighty-one miles from Sydney. Wollongong is also a considerable town on the sea-coast, about sixty-four miles from Sydney. The other towns are Camden, Wilton, Picton, Kiama, and Murrimba. Camden may be termed the lake county of New South Wales; the Camden and Illawarra lakes abounding with the most enchanting scenery. The population is 9,663.

Cook is bounded by the counties of Roxburgh, Westmoreland, Camden, Cumberland, and Hunter. Its length is sixty miles, and its breadth forty-four, containing 1,065,600 acres. Cook's county lies near the Blue Mountains. The soil is indifferent, but interspersed with fertile valleys; it has also a large range of table-land of a picturesque and romantic character. It is well watered, as might be expected from its mountainous character. The chief town is Hartley, on the river Lett; the other towns are Emu, Wilberforce, Bowenfels, Rydal, and Cole. The population is 3,541.

Cumberland is the metropolitan county, and is bounded on the north and west by the Hawkesbury and Nepean; on the south-west by the Nepean and Cataract rivers; and on the east by the sea. Its character is that of an undulating plain, by no means remarkable for great fertility. Cumberland is sixty-three miles in length by thirty-eight in breadth, and contains 914,800 acres. It is by no means well watered, except near the Hawkesbury. Sydney, the metropolis, is the chief town; but Paramatta is the county town. The other towns are Liverpool, Windsor, Campbell Town, Penrith, Appin, Narellan, St. Mary's, and Ryde. The ports are Port Jackson, Botany Bay, Port Hacking, and Broken Bay. The population is 81,114.

Durham is bounded by the counties of Brisbane, Hunter, Northumberland, and Gloucester. Its length is sixty miles, and its width fifty, comprising 1,344,180 acres. This county is well watered, and contains several rivers of some magnitude. A portion of it is mountainous. The capital is Patterson, on the river of the same name. The other towns are Musselbrook, Seaham, Clarence Town, Dungop, Hinton, Greford, Merton, and Camberwell. The population is 7,928.

Georgiana is bounded by Argyle, Westmoreland, King, and Bathurst. The county is fifty miles long, and forty broad, containing 1,231,360 acres. Some portions of the county are mountainous. It is well watered. The portion of Georgiana bordering on Argyle contains gold. The chief town of the district is Bingham. Georgiana contains 1,525 inhabitants.

Gloucester is bounded by New England, Durham and Macquarie. It is eighty miles long, and sixty-five broad, comprising 1,375,200 acres. This county contains the Australian Agricultural Company's grant of 437,102 acres, forming a parallelogram which extends from the Manning River to Port Stephens. The northern parts of the county are mountainous. The chief towns are Raymond Terrace, the capital, on the river Hunter, at its junction with the Williams River; Carrington, on the shores of Port Stephens, and Stroud, on the Karuah river. The Church of England has considerable por sessions in this county. In the vicinity of these is an extraordinary geological freak of nature. A line of hills bears a striking resemblance to a ruined fortress, and the masses of rent rock are thickly dotted with granite balls of the size of cannon balls, half imbedded as would have been the case had they been fired with an insufficient charge of powder. The county abounds with other mineralogical curiosities. Gloucester contains numerous rivers and creeks, the chief of which are the Manning and Williams rivers. The population is 3,149.

Hunter is bounded by Brisbane, Durham, Northumberland, Cook, Roxburgh, and Phillip. It is seventy miles long, and forty-seven broad, containing 1,315,840 acres. The principal rivers are the Hunter, Goulburn, and Macdonald. Jerry's Town is the capital. The population is 1,063.

King is bounded by Argyle, Georgiana, Bathurst, Lachlan, and Murray. It contains about 1,159,840 acres. This county is in some parts mountainous, and is well watered. Some parts are very fertile, as at Boorowa and Yass Plains. The chief town is Gunning. The population is 2,505.

Macquarie is bounded by Macleay, New England, Gloucester, and the sea. Its length is sixty, and its breadth fifty miles, comprising 1,408,000 acres. A part of the county is mountainous, and highly romantic; the cliffs are the most precipitous in New South Wales. It contains some considerable rivers, of which the Manning and the Hastings are the principal ones. The towns are Port Macquarie, on the Hastings, Hay, Ballingarra, and Mariaville. Macquarie contains numerous lakes, the principal of which are Lake Innes, Queen's Lake, and Watson Taylor's Lake. The population is 1,637.

Murray is bounded by the counties of King, Argyle, St. Vincent, Northumberland, and the Maneroo district. It is seventy-eight miles long, by forty-four broad, and contains 1,458,080 acres. Murray contains some considerable rivers, the principal being the Murrumbidgee—one of the largest in New South Wales—the Shoalhaven, the Yass, Inigery, and

Molonglo. The towns are Queanbeyan, the capital, on the river of the same name, Bungendore, Yass, and Larbert. The population is 3,886.

Northumberland is bounded by Durham, Gloucester, Hunter, Cumberland, and the sea. This county is sixty-eight miles long, and fifty-five broad, comprising 1,498,060 acres. Northumberland is second in importance to the metropolitan county only, being intersected with numerous creeks and rivers, giving every facility for internal traffic, an advantage which no other county in New South Wales possesses to the same extent. The Hunter river affords an outlet for the produce of the whole northern boundary, and this portion is covered with the most flourishing farms and estates in the colony. It is the coal district of New South Wales, and possesses an abundance of this valuable mineral, and facility for working it, which may vie with its British congener. Some parts of the county are mountainous, and every part is fertile and highly picturesque. The valleys are also famed for their beauty, the Yarramalong especially. Lake Macquarie, the largest lake in New South Wales, about twelve miles from Newcastle, is famed for the beauty of the surrounding scenery. Several smaller lakes enrich the surface of the country, as Brisbane Water, Tuggerah Beach, and Womberall. The towns are Newcastle, East and West Maitland, Morpeth, Singleton, Wollambi, Hexham, East and West Gosford, and St. Albans. The population is 15,207.

Phillip is bounded by Wellington, Roxburgh, Hunter, Brisbane, and Bligh. Its length is fifty-three miles, and its breadth forty-one, containing 1,035,520 acres. The county is flat, and there are few rivers of consequence except the Goulburn. The chief place is Rylstone. The population is 674.

Roxburgh is bounded by Phillip, Hunter, Cook, Westmoreland, Bathurst, and Wellington. It is fifty miles long, and forty broad, containing 972,160 acres. Many portions of this county are highly fertile, and it is admirably watered throughout. Kelso is the chief town, and Rydal the only other. The population is 2,538.

St. Vincent is bounded by Camden, Murray, the Maneroo country, and the sea. It is eighty miles long, and forty broad, comprising an area of 1,704,844 acres. This is a gold producing county, and its general features are highly interesting. It contains numerous rivers, amongst which the Shoalhaven and the Macleay are the principal. Its harbours are excellent, amongst which the most prominent are Jervis Bay, Crookhaven, Shoalhaven, Sussexhaven, Ulladulla, Bateman's Bay, Broulee, and Moruya. Braidwood is its chief town, in the vicinity of which are the most promising gold diggings of the colony. The other towns are Huskisson, Broulee, Ulladulla, Marlow, Narriga, Tianjara, and Farnham. Its maritime boundary is very picturesque. The population is 2,572.

Wellington is bounded by Bligh, Phillip, Roxburgh, Bathurst, and the Wellington district. It is seventy-two miles long, and forty-two broad, containing 1,059,840 acres. This county is highly fertile, especially that portion called Wellington valley. It is well watered, and some portion of it is mountainous. This is a gold producing county, the first discoveries having taken place on the Turon, one of its rivers, this being still the chief seat of the New South Wales gold mines. Several rivers flow through the county, the chief of which is the Macquarie. The capital is Mudgee, and there is another town called Neurea. The population is 1,609.

Westmoreland is bounded by Bathurst, Roxburgh, Cook, Camden, Argyle, and Georgiana. It is sixty-four miles long, and thirty-two broad, containing 1,018,880 acres. A portion of the Blue Mountains stands in this county, some of the peaks rising to 4,000 feet above the level of the sea. There are several other summits reaching from 3,000 to 4,000 feet. O'Connell Town is the chief place. The population is 1,541.

Stanley.—The most northerly county of New South Wales. It lies between the parallels of 27° and 28° of south latitude, and is bounded on one side by the Pacific, and on the other by the great dividing range of mountains, in the southern portion of which gold is found. It is about sixty miles square, and contains 2,000,000 acres. The plains are amongst the richest in New South Wales; the principal are Normandy Plains, Laidlay Plains, Innes Plains, and Letitia Plains. The rivers are the Brisbane, Bremer, Stanley, Logan, Teviot, Lockyer, and Pumice Stone. The capital is Brisbane, on the river of the same name; the other town is Ipswich, on the Bremer. The county of Stanley contains the splendid harbour called Moreton Bay. This county, when the gold fever has somewhat subsided, will become one of the most important in New South Wales. It is even now contemplated to make it a separate province. The population numbers about 2,000, many of whom are Chinamen.

Besides the above, there are many other counties of no great importance at present to the emigrant. Their whole number is forty-six; the names of those not previously mentioned being, Cowley, Buccleuch, Dampier, Beresford, Wallace, Wellesley, Hawes, Parry, Buckland, Pottinger, Inglis, Vernon, Dudley, Sandon, Raleigh, Gresham, Clarence, Richmond, Rous, Buller, Ward, Churchill, Cavendish, and Canning.

In addition to the territorial division of the colony into counties, it has also been laid out in *squatting districts*, in which, for the most part, the vast shipments of wool have been produced. The importance of these districts, from which the prosperity of the colony has hitherto arisen, demand a passing notice, and the more so, as their hitherto flourishing condition has been so much interfered with by the discovery of the gold mines, the value of which, as compared with the industrial produce which has raised the colony to its eminence, and was raising it still higher, is somewhat questionable.

The principal squatting districts are as follows:—

Bligh.—Containing about five millions of acres, over which are scattered about 1,000 horses, 40,000 head of cattle, and 140,000 sheep.

Clarence River.—A well-watered district, of similar dimensions; contains about 2,000 horses, 40,000 head of cattle, and 200,000 sheep. The chief settlements are Cassino, on the Richmond river, and Drayton, on the Clarence river.

Darling Downs.—An extensive district, containing a number of plains well adapted to pastoral purposes, the principal of which are Darling Downs, Canning Downs, Cecil Plains, Peel Plains, and Waterloo Plains. Some portions of this district are mountainous. The stock comprises 1,000 horses, 30,000 cattle, and 400,000 sheep.

Lachlan. — A mountainous district, though containing a number of plains, of vast size, as the Eurylean Plains, the Molle Plains, &c. It is well watered, the principal rivers being the Murrumbidgee, Lachlan, Yass, and Boorowa. The stock is reckoned at 3,500 horses, 100,000 cattle, and 250,000 sheep.

Liverpool Plains.—A large district containing *ten million acres.* This is the best watered district of New South Wales, and contains a large number of considerable rivers. The Australian Agricultural Company has an estate in this district of 562,898 acres, which with their estate in the county of Gloucester, previously mentioned, makes altogether *a million* acres. The Liverpool Plains district contains the greatest extent of pastoral country of any in New South Wales. It is bounded by two parallel ranges of mountains, from which belts of forest traverse the plains at intervals, dividing them into a series of natural parallelograms. Some of the mountains reach an altitude of 3,000 feet. The chief town of the district is Tamworth, situated on the River Peel, in the Australian Agricultural Company's estate, about 254 miles from Sydney. The stock consists of 4,000 horses, 220,000 cattle, and 400,000 sheep.

Macleay River. — This district lies on the coast, extending as far back as the New England district. The stock is computed at 1,000 horses, 20,000 cattle, and 5,000 sheep.

Maneroo.—One of the most important districts of New South Wales for pastoral purposes, and presenting every indication of an abundance of gold. It lies on the right bank of the Murrumbidgee, extending over the Maneroo plains. This country, known as Brisbane Downs, forms a series of gentle undulations the soil being rich and fertile, lightly timbered, and remarkably well watered. These plains lie at the foot of the great Warragong chain, or Australian Alps, and form a square of about a hundred miles in extent. The district is altogether said to contain more available land than the whole of Tasmania, and abounds with everything necessary for the sustenance of man. In winter, the district is cold, being from 2,000 to 3,000 feet above the level of the sea, but the climate on the whole is delightful. The port to this extensive country is Twofold Bay, and as the attention of squatters has been rapidly drawn to it, the district must soon become one of the highest importance. The stock at present consists of 5,000 horses, 115,000 cattle, and 400,000 sheep.

Moreton Bay.—The boundaries of this district are not yet definitely defined. It lies for the most part between the ranges before mentioned under the head of Brisbane, and the coast, extending as far to the northward as 26° of south latitude. It is, for a country bordering on the tropics, well watered, and is admirably adapted for pastoral purposes, as well as for the growth of tropical produce. The principal bay in the district is Wide Bay. The stock consists of 1,000 horses, 20,000 cattle, and 250,000 sheep.

Murrumbidgee.—One of the largest squatting districts in the colony, containing no less than *twelve million acres.* It is watered by the two largest rivers in Australia, the Murrumbidgee and the Murray. The plains are very extensive. The stock numbers 3,000 horses, 100,000 cattle, and 400,000 sheep.

New England.—Contains about 5,000,000 acres, bordering on the Darling Downs district. It is reputed to contain gold. The country being well watered, is well adapted for pastoral purposes, and the flocks and herds have become very numerous. The stock consists of 2,000 horses, 60,000 cattle, and 600,000 sheep.

Wellington.—A large district, containing about *ten million* acres, lies between the rivers Lachlan and Macquarie, adjacent to the counties of Bathurst and Wellington. It is a well watered district, and is in some parts mountainous. The stock consists of 1,200 horses, 60,000 cattle, and 250,000 sheep.

The preceding are the principal squatting districts of New South Wales. We will now proceed to notice some of the principal towns which have sprung up during the formation and progress of the colony, commencing with the metropolis.

CHAPTER V.

Towns of New South Wales—Sydney—The Harbour—English air of Sydney—The Market—Hyde-park—Emancipists—Appearance of the city—Streets—Public buildings—Botanic Garden—Public institutions—Religious establishments—Manufactures—Bishoprics—Presbyteries—Revenue—Bathurst—Paramatta—Newcastle—Maitland—Morpeth—Windsor—Berrima—Wollongong—Boyd Town—Liverpool—Penrith—Appin—Port Macquarie—Roads.

SYDNEY.

This city, the capital of the Australian colonies, and if we are to attach any importance to the aspirations of the colonists, to become, at no distant date, the metropolis of the Australian empire, is situated on the southern shores of Port Jackson. On approaching the city from the heads, it has an imposing appearance, and when we take into consideration the comparatively short period of the existence of the colony, the wonder is that such a city should have sprung up within that period; its wealth having been entirely of its own creation—the country not possessing a single article of commerce which has not been introduced by the settlers. In this respect, New South Wales was almost alone among the countries of the earth—of which there are few which do not contain some of the exportable necessaries of life, but in Australia nothing exportable was indigenous—all has been created by the energy of the colonists.

From such insignificant beginnings, and with a society, for many years, of the very worst description, arose this remarkable city. The appearance from the harbour is very striking. The city stretches along the shore, and on the heights, in a truly majestic manner; the lower portion alive with the usual adjuncts of commerce, the central part studded with cathedrals, churches, and other public buildings, few of which are first-rate specimens of architecture on close inspection, but which, under the Italian sky of the colony, present a more imposing appearance than those of most European towns with greater architectural pretensions. The heights of Woollomolloo, rising above the city, are crowned with the truly elegant villas of the *élite* of Sydney society—composed of men who have, for the most part, become so by their own efforts, aided, it is true, by the luck of circumstances, which, however, often casts them down, even from the Woollomolloo heights, only to find their way back in the course of a few years,—for there is nothing on earth so elastic as a Sydney merchant. You may cast him down, but it is impossible to keep him down. He will work day and night to gratify his love of display; and in this he rarely fails, however thwarted for a time. From this passion spring the elegant suburban edifices which crown the picture of Sydney, as seen from the harbour.

The entrance to the harbour is between two magnificent cliffs, named the North and South Heads, upon which, if batteries were placed, it would be impossible for an enemy's ship to enter without being sunk; the harbour might, in fact, be rendered a second Gibraltar. When within the Heads, the scene is one of remarkable beauty, from the picturesque appearance of the various inlets and islands, the shores of which are covered with an ever-verdant vegetation, of a character altogether new to the emigrant, who, till he has arrived at the city, feels that he is in a new world. When once within the city, all is again English but the sky.

On passing through the Heads, to the left is Watson's Bay, the pilot station. On the right is the quarantine-ground, backed by the burial-place of those who are unfortunate enough to die when thus near the shores of the land of promise. Opposite Watson's Bay is the only danger of the harbour, the "Sow and Pigs," a small shoal, easily avoided. Further on is Bradley's Point, with its miserable apology for a battery. On the opposite shore are Vaucluse and Point Piper. Shark's, Garden, and Pinchgut islands, are now passed—the latter so called, because at one time convicts were sent there to be starved into obedience. As the vessel glides on, she passes Fort Macquarie, and then lets go her anchor in Sydney Cove; the voyage, its anxieties, and we will add, its pleasures—for there are many, even at sea—are ended; and there are few who have the good-luck, as most have, to have come out in a good ship under a good captain, who do not regret leaving the ship which for four months has been to them a home devoid of care, and who do not feel that care renewed by the prospect of the new career which is before them. They need be under no fear for the result.

Sydney Cove has deep water to within a few feet of the shore, and wharfs have been constructed, alongside of which the largest vessels can load or discharge cargo. The Circular Wharf is the most prominent of these. This wharf, and the cove generally, is appropriated to foreign merchantmen; whilst the steamboats and coasting traders have their jetties and wharfs in Darling Harbour. The rise of tide in Sydney Harbour is trifling. Nearly a thousand vessels enter the port annually, and many ships of large size are built. A large fleet of whalers belong to the port, and innumerable traders, which periodically visit the islands of the Pacific. Ships of all nations put into Sydney to refit, every facility being afforded. Steamboats are numerous, some trading between the capital and the outports, others going to and fro from the neighbouring colonies; whilst the Paramatta boats, going and coming at all hours of the day, present the counterpart of our Gravesend steamers at home.

On landing in Sydney, it is difficult for the new comer to persuade himself that he is in a strange land. Everything is thoroughly English. The principal streets are spacious, with the footways paved, as in London; the shops might be met with in the Strand,—a crowd of people is bustling along with the same businesslike air as at home. He is hailed by omnibus cads with the exclamation, "Paddington!" but without its usual addition of "Bank!" "Cab, sir!" is as infallible a salutation as it would be were he to pause at the cab-stand at Charing Cross. Drays and horses might be the property of Barclay and Company, only the horses are not quite so plethoric. Teams of oxen, dragging huge bales of wool, which they have brought from a distance of perhaps a couple of hundred miles in the interior, are the only things to which he has not been accustomed in England. A cursory view of the town also convinces him that the industrial arts of his native country have taken root here also. Tall chimneys, pouring forth volumes of smoke, indicate the presence of numerous steam-engines; and differ only in one respect from their English congeners, viz., that they are polluting one of the purest atmospheres on the face of the earth, instead of the thick, murky substance which Londoners are in the habit of calling "air."

If he stroll into the market, of which Sydney possesses one quite worthy of its importance, the scene before him is not English,—for he will see beef and mutton being sold at a penny or two-pence per pound. At another shop is a man retailing turtle at the same price. A little further on he will see some of the vilest fish in creation, the almost only eatable one in the Sydney waters being the garfish. Wild turkeys, fowls, ducks, pigeons, and numerous other delicacies belonging to the feathered tribes, are there in abundance. The vegetable market is equally well supplied; whilst the fruit department is not only tempting, but highly dangerous to a new comer, if he indulge his appetite inordinately. Pine-apples and bananas are as plentiful as cabbages in Covent-garden, and almost as cheap.

Oranges, melons, grapes, peaches, nectarines, plums, loquets, and other delicious fruits, are within the reach of the poorest, for whom, as well as their wealthier neighbours, they often form the midday meal; after which, all classes can indulge in excellent native wine,—Sauterne, Claret, Madeira, or Champagne. All this is un-English.

The market itself is an epitome of the importance of the population frequenting it. It is in George-street, and is brilliantly lighted, and judiciously ventilated. The throngs visiting it on a Saturday evening resemble those in Leadenhall-market at the same period. From the heat of the climate, everything must be sold; and their beef and mutton is not bought by the pound, but by the joint, a few pence amply providing the Sunday's dinner. Animal food is the least important part of domestic expenditure.

If the newly-arrived immigrant go on, he will come to another English scene—Hyde-park, for Sydney has its Hyde-park as well as London; and there he will find the wealthier inhabitants taking their drive as regularly, and with infinitely more importance, than the English aristocrats whom they are caricaturing. As in Kensington Gardens, the bands of the regiments quartered in Sydney are playing the last new polka, or the airs from the last new opera. Tired of this, he may ramble into the Botanic Garden, where he will find the floral treasures of tropical and semi-tropical climes flourishing in the greatest luxuriance, but not, as at home, under glass. The balmy atmosphere around him amply suffices for all their purposes, as it will suffice for his also.

If he extend his walk beyond the suburbs, he will be struck with the novel character of the vegetation, but more so with the apparent barrenness of the soil. If his walk be in the direction of the South Head, he will see nothing but sand, as white as snow. As a matter-of-course, he will ask the first man he meets, how anything *can* grow in such a soil? He will be informed that anything *will* grow, as he may judge for himself, if he look around him. The Surrey Hills, to the southward, are covered with this sand, and a stranger may imagine them to be snow-capped. It is said these hills were, in the origin of the colony, pasture-ground, but that, in consequence of Cook's River having been dammed up, the wind has driven the sand from Botany Bay. If the land gales swept over these hills, Sydney would be unbearable.

English, however, as everything appears, he will not quite like the appearance of some whom he may meet. For instance, when watching the carriages of the Sydney aristocracy in Hyde-park, he would be struck by one which excels in gaudiness and lavish display. Within he would see a man as obtrusively vulgar in appearance as is his carriage. That man is one of the millionaires of Sydney, and owes his wealth to having stood twice under the gallows,—once in England, and once in the colony, with the luck of a reprieve each time. These were the beginnings of his fortune. He is now, or rather was—for he has recently gone to his account—the honestest and most punctual man in Sydney; trusted by every one, and deceiving no one; being rich, and without the motives for temptation. That flashy-looking man in a tandem was transported for bank robbery. He is now one of the richest men in the colony. The proceeds of his robbery, which were considerable, were not recovered; and shortly after his transportation, his wife followed with the whole of the plunder. According to the system which then prevailed, she got him assigned to herself, *as a servant!* and their fortunes were made. The portly inmate of that splendid carriage must, however, be at least the mother of his Excellency the Governor. No such thing; she was, many years ago, transported for stealing a donkey. Sometimes these rich convicts come home, in the expectation that their wealth will do anything for them in England. They are, however, mistaken, and usually drag out an obscure, though ostentatious, existence, not unfrequently returning to the scene of their prosperity in disgust.

Amongst the pedestrians, our new comer will encounter some villainous-looking countenances. He need not be alarmed,—all are too well-to-do to care about robbing him, though many would, at one time of their lives, have told him to "stand and deliver." He will probably be glad to see, on his return to the city in the evening, that the streets are brilliantly lighted with gas, and thickly studded with policemen. These precautions are by no means unnecessary; for well-to-do as are the 50,000 thieves whom the mother country has thrown upon the shores of the colony, there are not a few of them who would have no objection to trying their hands at their old profession, if it could be done with impunity, and anything were to be got by it.

All this is, however, fast passing away, and Australian prosperity is obliterating what English poverty effected. Fill a man's pocket and his belly, and crime will be absent from his heart. When the generation of actual thieves has passed away, their descendants will be thieves no more, leaving behind a sharp Yankee-like people, going a-head at a rate, perhaps, more enterprising than scrupulous.

The most conspicuous amongst the buildings of the metropolis are the cathedrals of St. Andrew and St. Mary, which, towering above the higher parts of the city, give a dignity to the scene from whatever point they may be viewed. The new Government-house is also an imposing structure as seen from the sea, but disappoints the observer on a closer inspection. The style, what there is of it, is Tudor, but the heaviness of the building—giving it at a distance a feudal look—is out of place in a country where the inhabitants would ridicule the smallest approach to feudality. It has also another disadvantage, that of being in an inverse ratio, in point of magnitude, to the Governor's salary. Government-house is most delightfully situated, between the Cove and the Government-gardens, and commands a view over the waters of the harbour.

On entering the town, by a species of Wapping, as is usual in commercial sea-ports, we shortly arrive in George-street, which would reflect no discredit upon a European capital, if numbered amongst its principal streets. Several other excellent streets may be named, as Pitt, Castlereagh, Elizabeth, Macquarie, Sussex, and Kent streets. All others are unworthy of notice, and belie the impression created on entering the harbour. They have, however, one advantage, which it would have been well to have recorded of European towns; they are for the most part laid out at right angles, so that the inhabitants of the Australian metropolis will not, like the denizens of their English prototype, have to pull down houses and churches in order to render their streets passable.

The public buildings are numerous, though the taste of most of them is questionable. The principal amongst them are—the Custom House on the Circular Quay, the New Court House, the Legislative Council Chambers, the Treasury, the Post Office, the Australian Subscription Library, the Police Office, the Sydney College, the Benevolent Asylum, St. James's Church, Christ's Church, St. Mary's, St. Patrick's, St. Benedict's, Trinity, the new Centenary Chapel, the Jew's Synagogue, the Museum, and not a few others of a public character which might be enumerated. However badly the architectural taste of the citizens may have been directed, it is not a little creditable to them that so many public buildings should have sprung up where, little more than half a century ago, nothing existed but the forest and the savage.

Besides these, there are the Hyde-park Barracks, in which convicts were formerly kept; the old Court House; the long line of Hospitals, and other Government buildings, in Macquarie-street; the Royal Hotel, in George-street, built at a cost of 30,000*l.*; the Theatre, in Pitt-street, an elegant building and well supported; the Club House, in Bent-street; and numerous private buildings of merchants and storekeepers; many of these are elegant and substantial, being built of freestone, the shops being as well furnished as those in London, and their contents as tastefully displayed.

The glory of Sydney is its Domain, comprising some hundreds acres on a projection of land which extends into the waters of the harbour. A few minutes' walk brings the pedestrian, half suffocated with the hot, dry atmosphere of George-street, into Hyde Park, formerly the race-course. This, as well as being the fashionable drive, is the play-ground of the city, and as such presents the spectacle of old English sports going on with great vigour. There are two entrances; one, the public drive in Hyde Park, and the other, by a detour round the Cove, by way of Port Macquarie. The public walks are admirably laid out. This advantage to the city was first secured by Governor Macquarie, and has ever since continued a prominent object of solicitude. In the long walk, in the side of a rock overhanging a romantic beach, is Lady Macquarie's chair, a seat designed by nature, and adorned by man. The panoramic views from this spot are charming, comprising the waters of the harbour and the north shore. At the entrance of the Domain is a large plain, where reviews take place, and the military bands perform on particular days, as does also the city band.

The pride of the Domain is that portion of it allotted to the Government gardens. It has been called the "Eden of Eastern Australia," and well does it deserve the appellation. All kinds of tropical and semi-tropical rarities have been here brought together from all parts of the globe, even Indian and South American plants flourishing in the greatest luxuriance. Amongst rare European plants, the English reader will be surprised to find the gooseberry and the currant; but so it is; the climate of New South Wales not being favourable to their growth. The most striking objects are the Norfolk Island pines and the bamboos. The soil is naturally sterile, but the utmost care has been lavished upon it, and the result is, an assemblage of interesting plants which can no where else be witnessed. The manner in which the gardens are laid out is equally attractive with their botanic specimens; an air of tropical luxuriance being attained by shrubberies, flower-plots, winding shady walks, grassy terraces, sequestered seats, and lounging places hewn out of the rocks, overshadowed by native figs and other thick-foliaged trees. In one part is an artificial pond, fringed by weeping willows, these being amongst the rarities of the garden. In the centre of the pond is an obelisk to the memory of the botanist Allan Cunningham, formerly superintendent of the gardens, which owe much to his skill and taste. The gardens are open at all times, and form the favourite resort of all classes.

Public institutions are abundant. There are four banks: two colonial—the Bank of New South Wales, and the Commercial Bank; and two Anglo-colonial—the Bank of Australasia, and the Union Bank of Australia. There are also—the British Colonial Bank, the Royal Bank, and a Savings Bank in which deposits can be made to the extent of 200*l.* Companies for public objects abound—as the Australian Agricultural Company, the Hunter River Steam Navigation Company, the Australian Gas Company, the Australian Sugar Company, the Sydney Salting Company, the Australian Trust Company, the Scottish Australian Investment Company, the Sydney Alliance Fire and Life Insurance Company, the General Assurance Company, the Australian Colonial and General Life Assurance Annuity Company, &c. &c.

There are handsome barracks for two regiments at the Surrey Hills, about two and a half miles from the city. The barracks were formerly in George-street, in the centre of the town, but as continual squabbles were occurring between the soldiers and the townspeople, the Government thought best to remove the troops to a distance. It is, however, an anomaly to place the troops intended for the defence of the city in the bush. Not that their present numbers would be of much use anywhere. It has been well said, that a large frigate might at any time lay the city under contribution, in defiance of the troops and fortifications; the latter being of a ridiculous character in comparison with the importance of the place over which they make a show of keeping guard.

Religious establishments are numerous, all denominations flourishing alike under the fostering care of the Government, which, under certain conditions, lends a hand to all without distinction. The Episcopalians and the Roman Catholics are the most numerous. The former are under the regulation of a Bishop, and the latter of an Archbishop. Besides these, there are congregations of Presbyterians, Wesleyans, Independents, Baptists, Quakers, and Jews, all of whom have excellent places of worship, and number amongst their pastors many ministers of eminence and zeal. There are also several charitable and useful institutions—as a Benevolent Society, a Dispensary, a Stranger's Friend Society, the Sydney Dorcas Society, a Temperance Society, Total Abstinence Society, and many benefit and friendly societies.

Education is equally well provided for. A University, established by the Legislative Council, has commenced its operations, though it has not received the sanction of the Bishop, not being exclusively Church of England, these being his ideas of what a University ought to be. There is also a Sydney College and an Australian College, which are rather schools of a high character. Besides these, there are St. Mary's Archiepiscopal Seminary, the Normal Institution, and the Australian School Society. In addition to these, there are six schools attached to the Church of England, seven to the Presbyterian Church, six to the Roman Catholic Church, and one to the Wesleyan. These receive the support of Government. Besides these, there are Independent and Baptist schools, which receive no support from the State, and many others of a private character. Connected with these are literary and scientific associations—as the Mechanics' School of Arts, the Australian Subscription Library and Reading Rooms, the Church Book Society, the Clerical Book Society, the New South Wales Law Library, and the Australian Museum and Botanic Gardens, the latter being of a highly interesting character, and forming one of the most delightful resorts for recreation that can be desired.

Sydney, as a city, is independent of the local government like the city of London. It is governed by a mayor, with a salary of 800*l.* a year, aldermen, common-councillors, and the usual staff of an English municipality, the corporation having similar powers, and similar control over its regulation. Like their prototypes at home, they dine and squabble furiously their debates being much more remarkable for zeal than elegance. In one respect, they are superior to English corporations: they spend the public money on the object for which it is levied, rather than on the indulgence of their own interests and appetites.

The colony generally possesses a considerable number of manufacturing establishments, viz., seventy steam flour-mills, fifty water-mills, twenty-six wind-mills, twenty-eight bone-mills, ninety-five melting-houses, five distilleries, twenty-four breweries, three sugar refineries, twenty soap and candle manufactories, fifteen tobacco and snuff manufactories, six woollen-cloth factories, producing annually 200,000 yards of tweed and broadcloth, forty tanneries, five establishments for salting and preserving meat, four hat, and four rope manufactories, one gaswork, seven potteries, one glass-house, one smelting-work, and thirteen brass and iron foundries. These were the returns of 1850.

The Sydney banks have a circulation of about 250,000*l.* in notes, and about 650,000*l.* of coin in their coffers. They grant no interest on deposits, though these vary from 300,000*l.* to 4,000,000*l.* The banking business of Sydney is in a very healthy condition.

The press is well supported, both daily, bi-weekly, and weekly. One of the daily papers, the *Sydney Morning Herald*, would do honour to any country. The weekly publications are numerous, and for the most part conducted with intelligence and good taste, though some are of as infamous a character as are their congeners published in London; proving that in all countries the bad passions of men demand to be pandered to, as well as their intellects.

Professional men also abound and flourish, with the exception of medical men, to whose well-being the climate is inimical. Yet even these find their account in the diseases caused by excess, which in the Australian colonies, as elsewhere, cannot be indulged in with impunity. Upwards of two hundred of these gentlemen contrive to pick up a living, and their numbers are constantly augmented by the surgeons of emigrant ships, though the latter usually migrate to the interior, or, being disappointed, leave the colony on the first opportunity. Lawyers, in proportion to the population, literally swarm, the rolls containing fifty barristers, and a hundred and twenty attorneys and proctors, who all find employment, from the peculiar condition of society; litigation being much more fashionable amongst all classes than honesty, whilst law is comparatively cheap.

As has been before stated, the religious establishments are numerous and well regulated. There are two bishoprics, Sydney and Newcastle, the Bishop of Sydney being metropolitan of Australia. The bishopric of Newcastle comprises the counties north of the Hunter river, or an extent of about 700 miles by 500, an area larger than the whole of Great Britain. The diocese of Sydney comprises all the remaining territory of the colony. The number of churches, according to the last returns, is seventy. The Bishop of Sydney receives from the colonial treasury a salary of 2,000*l.* per annum; the Bishop of Newcastle 1,000*l.*

The Roman Catholic Church is under the administration of an archbishop, and an extensive establishment of subordinates. The number of churches is fifty-eight. The Archbishop receives 500*l.* a year from the colonial funds, and a Vicar-General 200*l.* The Roman Catholics in Sydney are a numerous body, amounting to a third of the population. This is owing to the circumstance of all Irish convicts having here landed in New South Wales.

The Presbyterian Church is under the government of the Synod of Australia, and is divided as follows:—Presbytery of Sydney, with five churches, occupied by ordained ministers of the Church, and a number of temporary churches, served occasionally by members of the presbytery;—Presbytery of Windsor, with three churches, and a number of temporary ones, served as before;—Presbytery of Campbelltown, with three churches, and a number of temporary ones;—Presbytery of Maitland, with four churches, and a number of temporary ones.

The Synod of Australia has numerous schools under its superintendence, as has also the Synod of Eastern Australia, consisting of the ministers and elders who separated from the Established Church of Scotland in 1846. They, too, have an excellent place of worship in Sydney, and many scattered places throughout the colony.

The Wesleyan Methodists have about fifty chapels, and a like number of preaching places. The Congregationalists are not so numerous, but equally active in disseminating the truths of Christianity.

For general police purposes, the colony is divided into districts, which are incorporated for the purpose of levying taxes for the support of the police, for repairing roads, and for educational purposes. The members of the district councils have, however, no control over the expenditure, so that they are regarded as little more than the imposers of taxation. They have twenty-nine of these districts under their regulations.

The government of the colony is administered by a Governor, who is also Governor-General of all the Australian colonies, an Executive Council, and a Legislative Council, for the most part elective, but containing a proportion of nominees. The laws are the statute laws of England, combined with various and occasional Imperial and local enactments. The law is administered by a Supreme Court, consisting of a chief justice, and several puisne judges, who combine the powers of the courts of Queen's Bench, Common Pleas, and Exchequer, at Westminster. There is an attorney and solicitor-general, and barristers and solicitors are admitted to practise, much as at home. The sheriff exercises jurisdiction over the whole colony. There is also an efficient police force, under thirty-two benches of paid and unpaid magistrates.

The revenue of the colony is large, amounting, in 1851, to

405,598*l.*, of which 277,793*l.* was general revenue, 123,345*l.* Crown revenue, and 4,460*l.* clergy and school collections. The general revenue is derived from duty on spirits and tobacco imported, spirits distilled in the colony, port dues, assessment of stock beyond the settled districts, auction duty, licenses to publicans, auctioneers and others, post-office fines and forfeitures, fees of office, &c. The Crown revenue consists of proceeds of the sale of land and town allotments, land and immigration deposits, quit-rents, licenses to squatters and timber cutters, rents of government quarries, gold licenses, receipts for the escort and conveyance of gold, &c., &c. In the year 1841, in consequence of the mania for land speculation, which shortly afterwards plunged the colony in bankruptcy, the revenue rose to the enormous sum of 653,127*l.*

The exports consist chiefly of gold, wool, tallow, beef, hides, horns, mutton, bones, oil, whalebone, tobacco, timber, bark, wine, leather, skins, soap, gum, and a varity of minor articles.

The imports consist chiefly of British, American, and French manufactures. The British manufactures imported are woollens, stationery and books, musical instruments, spirits, wine, iron and steel, hardware and ironmongery, hats, caps, bonnets and haberdashery, glass, earthenware and china, cotton, hosiery, blankets and bedding, beer and ale, wearing apparel and slops, canvass, drugs, millinery, oilman's stores, salt, silks, tobacco, &c., &c.

Next to the capital, the following are the principal towns of New South Wales:—

Bathurst.—The capital of the county of the same name. It is situated in latitude 33° 24′ south; longitude 149° 29′ east, and is distant from Sydney 121 miles. The town stands on the river Macquarie, and received its name from Governor Macquarie, in honour of the then secretary of the colonies. Commencing near the town are the Bathurst Plains, a district of naturally clear land, about nineteen miles in length, and from six to eight in breadth, containing a superficial area of about 120 square miles. These plains consist of a series of gentle undulations, with intervening valleys of moderate extent, the surrounding forest country being generally but thinly timbered, and patches of the forest stretching at irregular intervals into the plains, like points of land into a lake. The river Macquarie traverses the whole length of the district. The plains are situated upwards of 2,000 feet above the level of the sea, and hence the locality is very temperate and healthy, forming an occasional retreat for the invalids of the more arid districts, similar to that of the Neilgherry hills in India. Near Bathurst is an extensive lake, the receptacle of the torrents which in the rainy season pour down from the Blue Mountains. It is from three to five miles in extent, varying according to the seasons. Much of the land on its shores has been reclaimed, and brought into cultivation. Bathurst stands on the verge of the gold fields of New South Wales, to which we shall afterwards revert.

Paramatta, in the county of Cumberland, eighteen miles from Sydney, is the seat of the county executive. It stands near the Paramatta river, which is the name given to a creek which in reality is the head of the harbour of Port Jackson. On the first establishment of the place, it was called Rose Hill, but with great good taste the more euphonious native name of Paramatta was restored to it. A small fresh-water river runs through the town, and falls into the creek above mentioned. The scenery around Paramatta is very interesting, on which account it is a frequent resort of the inhabitants of Sydney, steamboats constantly running between these towns. The main street is above a mile in length, and contains many excellent buildings.

The Governor has a country seat at Paramatta; this is a very neat building, and from the desirableness of the locality, it usually becomes his residence during a portion of the year. The court-house is a very handsome building, and numerous others are scattered over the town and neighbourhood. There is also an excellent establishment for female orphans on the bank of the river. Within half a mile of the town is the penitentiary, or, as it is generally termed, "factory" for female prisoners, where, whilst the convict system was in vogue, those who had not been assigned as servants, or who, having returned from service, were awaiting new masters, or who had been remanded for punishment, were confined in separate classes. The building is large, massive, and clean, but being situated in a valley, and enclosed with high walls, the inmates were not at all times healthy. Paramatta contains also a Roman Catholic male and female orphan school, a King's school, observatory, military barracks, military and general hospital, two Protestant and one Roman Catholic churches, two Wesleyan, two Scotch, and one Independent, chapels. A woollen manufacture of some magnitude has been established here.

Newcastle, a seaport town of New South Wales, is situated at the mouth of the river Hunter, and is the seat of the coal trade. It is about eighty miles from Sydney harbour, and was formerly called King's Town; the name of the Coal River, on which it stands, having been changed to that of Port Hunter. It is the seat of a considerable trade, and is rapidly rising into eminence, as well from its position, at the commencement of the navigation of the Hunter, as from the coal mines in the vicinity.

Maitland, East and West, are situated on the river Hunter above Newcastle. East Maitland stands at the junction of the Wallis Creek with that river, 120 miles from Sydney, about twenty miles from Newcastle, and three miles from Morpeth, at the head of the navigation of the Hunter. The town is very pleasantly located, but has the serious drawback of a scarcity of good water. It has two neat churches, Episcopalian and Roman Catholic. The best building in the town is the branch Bank of Australasia. A large gaol was also in course of erection here for the criminals of the northern districts; but from the discontinuance of convictism to New South Wales, it is probable that it will not be completed.

West Maitland stands on the opposite bank of Wallis Creek. This town has risen on the lands of private individuals, and having the advantage of a liberal supply of fresh water, it has taken the lead of its opposite neighbour, and may, from the extent of its trade, be called the capital of the northern districts. It contains several handsome places of worship, amongst which the Roman Catholic church is conspicuous.

West Maitland is the centre of an extensive agricultural country, and commanding, as it does, the traffic to and from the squatting districts of Liverpool Plains, New England, &c. it has become a thriving and important town. Coal mines are also extensively worked in the vicinity of both East and West Maitland, the coal being abundant, and of a superior quality. It is obtainable on the spot, at the moderate rate of six shillings the ton. A tobacco manufactory, on an extensive scale, has also been established here by two American gentlemen, and a vast improvement in the quality of colonial tobacco has, in consequence, taken place; this article, now that careful cultivation is being applied to it, promises to become equal to that of the United States. An admirable newspaper, the *Maitland Mercury*, is published here, and has contributed much to raise the place into estimation, the ability displayed in its columns being quite equal to that of its metropolitan contemporaries.

Morpeth, above Maitland, stands at the head of the navigable portion of the Hunter River, about twenty-nine miles from Newcastle. This is the extreme limit to which steam navigation on the Hunter is carried on with Sydney. Morpeth is a rapidly rising town, and, like its neighbours, has abundance of coal in the vicinity, some mines being in actual operation. The Hunter River Steam Navigation Company has an extensive wharf here, and throughout the greater part of the year there is a daily communication to and from the metropolis by the steam vessels of the company. A considerable number of sailing vessels also trade between Morpeth and Sydney. The town contains Episcopalian and Wesleyan places of worship, several excellent schools, steam flour mills, and a soap manufactory.

Windsor is in the metropolitan county of Cumberland, about thirty-five miles from Sydney, and twenty from Paramatta; it is situated at the confluence of the South Creek with the Hawkesbury. The river for four miles above Windsor is navigable for vessels of 100 tons burden. The town stands on a hill 100 feet above the level of the river, and commands extensive views over a beautiful country. Its buildings, like those of Paramatta, are excellent, and it is connected with the metropolis by good roads, on which stage coaches ply daily. The land in the vicinity is very fertile, and the farms being small, the country is highly cultivated, forming, in conjunction with its natural scenery, one of the most desirable localities in New South Wales.

Goulburn, in the county of Argyle, 125 miles from Sydney, is a flourishing town on the Wollondilly, near its junction with the Mulwarree. From its vicinity to the gold fields, this town must increase in importance. It is a place of some trade, and possesses a weekly newspaper.

Berrima, the chief town of the county of Camden, is eighty-one miles from Sydney. It is situated on the Wingecaribbee river, about five miles from Bong Bong.

Wollongong, in the county of Camden, is on the sea coast, about sixty miles from Sydney, and forms a favourite retreat for invalids. It is situated in the Illawarra district, one of the most romantic in the colony. The Illawarra mountain is a lofty range running parallel to the coast, and affording prospects inconceivably beautiful. The Illawarra district is a belt enclosed between the mountain and the ocean, thickly wooded, and of exuberant fertility. The descent of the mountain forms the most precipitous road in the colony.

Boyd Town is a rapidly rising town on the shores of Twofold Bay. It forms the key to the Maneroo country, and is the chief port of outlet for the south-eastern districts. The town is named after its founder, Mr. Benjamin Boyd, who recently met with a premature death when on a cruise in his yacht amongst the islands of the Pacific. That gentleman had established here an extensive whaling establishment, employing nine vessels in the sperm whale fishery. He also erected a pier 300 feet long, and stationed a vessel for all the purposes of refitting. The town is well laid out, and has a handsome Gothic church, which serves also as a landmark. The houses are built of brick, and there is a splendid hotel in the Elizabethan style. There are large salting and boiling-down houses. A good road to the Maneroo country was also constructed under Mr. Boyd's auspices. As a port of refuge, the harbour is no less estimable than from its rising commerce. The government town of *Eden* also stands in Twofold Bay, but from the enterprise of the founder of Boyd Town, it has dwindled into insignificance.

Liverpool, in the county of Cumberland, is twenty miles from Sydney. Being the centre of a rich agricultural district, it has a considerable trade, and contains a neat church, hospital, &c. The buildings are in general good.

Penrith, a thriving little town in the county of Cumberland, thirty-three miles from Sydney, consists, for the most part, of one long street on the Great Western Road. This town is the seat of the Penrith district council. It contains a Protestant and Roman Catholic church, and the use of the Court House is conceded to the Presbyterians and Wesleyans for the celebration of divine worship.

Appin, a town in the county of Cumberland, forty-five miles from Sydney, is situated at King's Falls, where the Illawarra road crosses Tuggeral Creek. It does not contain more than 150 inhabitants.

Port Macquarie, the principal town of the county of Macquarie, stands at the mouth of the river Hastings, 278 miles from Sydney. It was so named by the discoverer of the river, Mr. Oxley, in honour of the then governor.

Besides these, there are numerous other towns established throughout the colony, most of which have been mentioned by name under the head of the counties to which they belong.

further notice than has been given, would scarcely be interesting to the English reader.

From the territorial divisions of the colony into counties, squatting districts, and towns, we will take a cursory view of the roads by which they are reached, premising that, with the exception of the Hunter River, New South Wales has no interior navigation worth mentioning, nor any canals; the only approach, beyond roads, to anything like a rapid means of communication being a railroad from Sydney to Goulburn, and this has only advanced as far as the formation of a company for constructing it: when the latter communication shall be brought about, is extremely problematical, as would be also the utility of it when finished, unless it were considerably extended.

New South Wales possesses three great roads leading towards the interior. Not roads in the English sense of the term, but a succession of openings through the forest, in which the chance of being lost is somewhat diminished. In the metropolitan county, and its vicinity, these roads have been constructed by convicts at an immense expense; yet, though small portions of them may be considered tolerable, the generality are such as an English traveller would be by no means inclined to encounter, if any other means of transit presented themselves.

The first of these runs almost north, from Sydney to the Hawkesbury, on which is a ferry. It then goes on, through the valley of the Wollombi, to Maitland on the Hunter. This is the "great north road;" and though vast sums have been expended on it, it is now for the most part impassable, except to a New South Wales horseman, who stops at nothing short of a gulf in which his horse and himself must inevitably be buried.

A second road goes in the direction of Paramatta, and thus far it is pretty good. From thence it goes to Penrith, where is another ferry over the Hawkesbury. The road now ascends to the summit of Mount York, one of the Blue Mountains, about 4,000 feet above the level of the sea. From Mount

York it leads towards Bathurst, by a kind of Australian Simplon, constructed by Sir T. Mitchell. From Bathurst it leads to Wellington Valley, where it stops.

The third road leads from Sydney, in the direction of the colony of Victoria. Mackenzie describes this road as consisting of gum-trees and public-houses; the grass for your horse improving as the comfort for yourself becomes less. It passes through Liverpool, Campbelltown, Berrima, Goulburn, and Yass, which is about 200 miles from Sydney. It crosses several rivers, the first of which is the Murrumbidgee, at Gundegai, 270 miles from Sydney. The next is the Hume River, 130 miles further, or 400 miles from Sydney. Fifty miles beyond the Hume, the road crosses the Ovens, and ninety miles beyond this the Goulburn River. From hence to Melbourne is sixty-five miles. With the exception of these roads there are no means of internal transit whatever, though wool has to be brought down in bullock-drays from immense distances, in order to reach the port of shipment.

CHAPTER VI.

NEW SOUTH WALES.

General features—Climate—Diseases—Seasons—Soil—Vegetable productions—Fruits—Seed time and harvests—Clearing—Land—Mode of obtaining it—Squatting runs—Coal mines—Convict system—Statistics—Comparison with California.

The general appearance of New South Wales is undulatory, rarely rising into hills of any magnitude, except in the instance of what is termed the great dividing chain of mountains running from Port Phillip to Moreton Bay. Some portions of the country exhibit great fertility, whilst others are arid and productive only in seasons of abundant rain. Towards the interior, the character of the country is that of a desert, interspersed with occasional oases. A range of lofty hills also runs along the coast, parallel with the dividing range, or Blue Mountains, as they are locally termed; the distance of the two varying from thirty to fifty miles. The intervening space is intersected by numerous rivers, having their rise in these elevations. Beyond the Blue Mountains, a vast extent of table-land extends in every direction, dipping at length towards the interior, when it again arises into lofty ranges, with depressions to the northern and southern shores.

Though the forest is in most of the settled parts universal, the timber is in general thinly scattered, and presents no obstacles like those encountered in the forests of America. The vegetation is extremely beautiful, though an English farmer would call the pasturage thin; and this is the case: hence the necessity for having such extensive squatting runs in proportion to the number of sheep and cattle pastured on them. The chief cause of this is, that in the heats of summer the vegetation is dried up, and the interior rivers for the most part cease to flow, a chain of ponds marking their usual course. Hence arises the deficiency of irrigation, and the adaptation of the country to pastoral, rather than to agricultural purposes; though, in wet seasons, the growth of vegetation is beyond conception luxuriant. In the character of the vegetation, the newly-arrived botanist turns over a new and striking page of nature; and profusely is it illustrated. The scenery is as striking as the Flora, varying from the quiet richness of hill and dale, to the characteristic grandeur of the primary rocks in the mountain districts.

The Blue Mountains, above spoken of, form a ridge extending throughout the whole length of the colony. To the early settlers they presented an insurmountable obstacle to penetrating into the interior, even the aborigines declaring that there was no pass. In 1813, a scarcity of pasturage occasioned by drought compelled the colonists to search for fresh runs, and a passage was found by Messrs. Blaxland, Wentworth, and Lawson, since when the progress of interior discovery has been rapidly going on. Many of these mountains are of great elevation, two being upwards of 6,000 feet, two above 5,000, four upwards of 4,000, sixteen upwards of 3,000, and thirty-three upwards of 2,000.

As might be expected from this difference of elevation, the climate varies considerably. On the coast, the days are frequently intolerably hot, though the evenings are cool, the range of the thermometer in the course of a day being great; yet, with this extreme variation of temperature, the climate on the coast is favourable to health. On the table-lands, the atmosphere is cool, and even in the interior, to the westward of the mountain ranges. In Sydney, frost and snow are unknown; in the mountain districts both are experienced. In the months of October and November, hot winds prevail on the coast, and in these months the population suffers much from ophthalmia. During this portion of the year, the vicinity of Sydney is visited by a species of sirocco, locally known by the name of a "brickfielder," from its blowing over a locality in which bricks were formerly made. This visitation is distressing, especially to new-comers. The air is filled with an impalpable dust, which no precautions can keep out of the houses, and a difficulty of breathing, almost bordering on suffocation in some instances, is felt by every one. So intense is the heat of these winds, that the thermometer will rise to 118° in the shade. The soil to the westward of the city is red, and is raised by the wind in one continuous cloud of impalpable dust, so dense that respiration becomes difficult. Every window is closed, the streets deserted, and business comparatively at a stand-still, till the visitation has passed over. The mean temperature in the hottest months is stated not to be over 75°, but this must mean the mean temperature of each day, not of the highest temperature of each day, which would far exceed that estimate. The winter average is 55°. The air is, however, pure and balmy, arising no doubt from its dryness, and the general salubrity of the country is proverbial. Fevers and agues are unknown, and a man may lie under a tree, as is frequently done by every one visiting "the bush," with as much safety as in a feather-bed. People are in general long-lived, and several instances have occurred of both men and women having reached upwards of 100 years. One old woman reached 125. These of course were from the mother-country: as a general rule, elderly people emigrating from England are restored to the usual condition of manhood in its prime. As a restorative to debilitated constitutions, the climate is a specific, if the causes for debility, so common in the mother-country, are resisted; with those causes in operation, no beneficial result can be expected. The colony is not unfrequently visited by terrific thunder and hailstorms, the hailstones being sometimes of an incredible size, killing birds and even young lambs, whilst the destruction caused by them amongst fruit-trees and vineyards is often considerable.

The climate necessarily varies much, according to the locality. In a considerable portion of Australia, the heat is of course tropical, but in the northern and eastern portions more temperate; though much hotter in the daytime than might be imagined from the latitude. The average temperature of a day is not a safe guide, as it is often extremely hot at midday, and very cold at night, the extreme of temperature being considerable. Yet this is not unhealthy; and even in the greatest heat there is little inconvenience, the air being dry and pure. This dryness of the atmosphere is highly salubrious, and is of the greatest advantage to consumptive patients. Exposure to the air is attended with no bad results, even in the night-time, a bushman thinking nothing of sleeping on the ground. Even in the hot winds there is little inconvenience felt, if the element of dust be absent. The greatest proof of the healthiness of the climate is the longevity attained, and the low rate of mortality. At Moreton Bay, the hottest settled district, out of 1,200 convicts and soldiers, one man only was in the hospital in six months. At Bathurst, two persons only died in twelve years. The dryness of the atmosphere is found also to give a remarkable buoyancy to the spirits. Birth is given to children by parents in an advanced stage of life; and the children are generally taller than in England. Instances are very common of women who have passed the period of child-bearing in England, again becoming prolific in Australia; and various singular effects are produced on most constitutions in both sexes.

The diseases most prevalent in the colony are ophthalmia, dysentery, and influenza. The former is caused by the hot winds and the glare of the atmosphere reflected from the light surface of the ground. Exposure to the sun with the head uncovered is also a cause of this complaint; and should the sufferer be much addicted to ardent spirits, blindness is not uncommonly the result. Dysentery is usually confined to the lower orders, and one of its exciting causes is drinking large quantities of cold water in hot weather. It arises also from an injudicious indulgence in fruits, from too long subsistence on salt provisions, from exposure to the intense heat of the sun, and from intemperate habits. If these are avoided, little inconveniences can result from an attack, to which newly-arrived emigrants are somewhat liable, from want of self-denial, after having been for so long cooped up on shipboard. Influenza is occasionally epidemic; and though troublesome, it rarely proves fatal. On one or two occasions it has, however, proved so to young children and old people.

The seasons, of course, are the reverse of ours in England; the middle of summer falling in January, and midwinter in July. The summer is considered to extend from the beginning of November to the end of February; the spring months are short, consisting of September and October; the autumn months are March, April, and May; and the winter, June, July, and August. The rainy months, *par excellence*, are March, April, and August.

Time is also opposite to our own, the English day being the Australian night. Our longest day is the shortest in Australia; we look south at the sun, our friends at the antipodes look north. With us the barometer falls before bad weather, and rises before good; in Australia it rises before bad weather, and falls before good. The north wind is there hot, and the south cold, whilst the valleys are cold and the mountain-tops warm. Australia has been called a country of contrarieties, not only in point of climate and its accessories, but in nature also. The swans are black, the eagles white; cherries grow with the stones outside, and delicious-looking pears are solid wood; bees have no sting; flowers, for the most part, no smell; birds do not sing; the greater portion of the trees have no shade, whilst, instead of turning the broad part of the leaf to the sun, they turn its edge, giving an idea of a forest in rags; for a great portion of the year the trees are destitute of bark, shewing only their naked stems; animals have pockets, in which they stow away their young; some quadrupeds have ducks' bills, and lay eggs; birds carry brooms in their mouth in place of tongues; owls screech in the daytime, and cuckoos sing at night,—with a variety of other contradictions, which convey the idea of nature turned topsyturvy.

The soil generally is scanty, and the pasture thinly scattered, hence arises the necessity for large sheep-runs, some of these being as extensive as many English counties. This description must, however, be qualified. New South Wales abounds with tracts of the highest possible fertility, and these are sufficiently numerous for an immense population. The productiveness of Australian agricultural land—except in seasons of drought, when the crops are totally destroyed—is extraordinary. For eight and ten years together, wheat has been grown without manure and without alternation of crops, the produce being thirty or forty bushels per annum; the grain also being of the finest quality, as evinced by the high price it commands whenever brought, as it sometimes is, to the London market. Sixty bushels of maize is by no means uncommon, though this grain rapidly exhausts the land. In the cooler portions of the colony, potatoes thrive equally well, yielding four or five tons per acre; and no less than ten tons of onions have been raised on the same space. Barley thrives well, but oats not at all,—these being, originally, the products of cold European climates, do not become acclimatised. Fruits of all kinds—except the apple, gooseberry, and currant—are abundant and excellent; comprising all the European, and most of the tropical horticultural delicacies. All these have been introduced by the colonists, for Australia itself does not produce a single fruit worthy of the name.

The vine grows to great perfection, and large sums have been expended in procuring almost every kind that is known in Europe. The Botanic Garden has, for years, maintained a large plantation of cuttings, which have been freely distributed to every part of the colony, and as liberally to other colonies. he consequence is, that New South Wales is rapidly becoming a great wine country, producing an article which may vie with the ordinary produce of European wine countries, and which is vastly superior to the majority of the trash which is sold in England under the name of wine. Several associations have been formed for the purpose of extending the wine manufacture, amongst which the Hunter River Vineyard Association is the most prominent. Wines of excellent character have already reached England, and when social industry shall have somewhat recovered from the shock sustained by it, in consequence of the gold discovery, the growth of wine for the European market will become one of the staples of the colony.

At present, however, the chief crops grown are wheat, maize, barley, and potatoes. Garden vegetables of all kinds are produced luxuriantly, and are very cheap in the towns. Green peas are always in season, winter and summer. The seed time for wheat is from the beginning of March to the end of June,—the harvest is from November to January. Reaping is effected by cutting the ears from the straw sufficiently low to secure the whole of them; the straw being considered of no value, as manure is never used, except for garden and orchard purposes. Maize, grown chiefly for feeding horses—one of which almost everyone possesses—is sown in October and November, and reaped in May and June; after which the land may be sown with wheat, so as to obtain two crops in one year. Barley is sown in June as well as oats, for the purpose of being cut green, as a substitute for hay, for which purpose green barley is also used. Potatoes may be planted at any time of the year, April, May, June, December, and January, being the best periods. Turnips, onions, and peas, may also be sown at any time of the year. In the north, sweet potatoes, yams, arrowroot, cotton, and New Zealand flax, are also beginning to be cultivated. The cultivation of the latter valuable article is remarkable. In New Zealand itself, it is the weed of the country, and it would be difficult to find, from one end of the islands to the other, a spot—the actual forest itself excepted—which is not covered with it. Yet there the article is comparatively neglected, whilst the inhabitants of the northern portion of New South Wales deem it worthy of cultivation. Ploughing is effected chiefly by bullocks, and the ploughs are usually *wooden* ones, which are found to answer best amongst the roots which remain in the land. Emigrants who take with them—as is frequently done—the scientific ploughs which figure at English shows, are pretty sure to be laughed at, in addition to the loss of the money expended.

Clearing is in general effected, where a permanent farm is being created, by digging round the roots of the trees, and cutting them so that the tree may fall, when the timber is burned on the ground. Squatters, whose tenure of the land is not permanent, content themselves with cutting off the trees about a yard from the ground, and then burning the fallen timber. The timber, further than for the purpose of erecting the necessary buildings and fences, is of no value whatever. Fences are constructed by morticing split rails into upright posts; the wood used is stringy bark, iron bark, gum, and forest oak.

The immigrant desirous of obtaining land in New South Wales may do so in two ways:—First, by private purchase, cleared or uncleared. Secondly, by Government auction. The first, in the present condition of the colony, is unquestionably the best mode, and cleared farms may be obtained at very moderate rates, frequently at considerably less sums than they could be purchased for from the Government, and cleared afterwards. Now that everyone is abandoning their farms for the gold diggings, these may be got for less even than the Government upset price.

If the emigrant intend to purchase land from the Government, he must apply at the Surveyor-General's office, where he will be informed as to what lands are unappropriated. He then visits any locality which may suit him, and having found a spot to his mind, he may make application to the Government for the same to be put up for sale at the minimum price of *twenty* *hillings* per acre. If he be newly arrived, this will be done in a month; if he has been some time in the colony, it will be three months before it is brought to auction. His difficulties now begin. If he has made his selection near some one who, for reasons of his own, is not anxious for a neighbour, he will be opposed at the sale, and his land be run up to a price far beyond its value. If this be not the case, in all probability the survey of the land will not have been completed within the period, and delay will take place on that account. Supposing that neither of these circumstances happen, the intending purchaser has another difficulty in a number of vagabonds, who infest the sale room for the purpose of extorting a *douceur* from the purchaser, in order to buy off their opposition, though they have not the least intention of buying the land. If he do not satisfy them, they will run up the price in the same way that a London broker does in auction rooms when he sees a person buying on his own account. This, in Sydney, is penal; but although a few convictions of fraudulent opposition have taken place, the system is in full force. One of these convictions was that of a man who, at the time, was one of the most reputedly wealthy merchants of the city, but who had stooped to this method of turning an honest penny at the expense of an emigrant. The intending emigrant will, after this exposition, agree with us that the less he has to do with Government sales the better; indeed, from the system pursued, and from the ridiculously high price of *one pound* per acre for land, the best of which has been picked years ago, the Government has contrived to bring the land-fund to a very low ebb.

If it be known that the newly-arrived emigrant have any money with which he desires to commence farming, and the more so if, as is often the case, he have a letter of introduction to a landowner, he is pretty certain to take land on a clearing lease. The mere fact of delivering a letter of introduction in Sydney, would be considered tantamount to his being simple enough for anything, and he really runs a fair chance of being done, as he certainly will be if he take the advice offered to him on any terms A lease of a small cleared farm, on very moderate terms, might be taken with advantage, on the principle of considering it so much money and time thrown away for the sake of a few years' agricultural experience; but unless in this way, and for this reason, let him not listen for a moment to a recommendation to take land on clearing lease: the result, as he will find when too late, would amount to a robbery of his time and means, with the certainty of a lawsuit to clear out the little he might have left at its expiration.

The remaining mode of occupying land in New South Wales is to "squat," i. e. to lease a large tract from the Government for purposes purely pastoral, no attention whatever being paid to agriculture further than is necessary for household purposes. This requires capital to begin with, unless the intending squatter engage himself for a few years to another following the same pursuit, with whom he may gain both experience and credit. The present time is highly favourable for commencing a sheep-farm. In consequence of the universal rush to the diggings, and the consequent deficiency of labour, "unbroken stock" may be bought for a trifle, and if the intending squatter do not encumber himself with more than he can at first manage with the aid of a couple of stockmen, he would be in a fair way of making a fortune when the gold fever has in some degree subsided, as it will in a year or two, from the vast influx of people to the mines beyond what can work at them profitably. That a reaction will take place in New South Wales especially, is certain, and that reaction will be in favour of the squatter who quietly waits for it.

A thousand pounds would, at the present time, lay the foundation of a fortune, provided the possessor made up his mind not to be tempted to the diggings. The first step would be to put it in the bank at landing, then to start at once for the out-stations. There would be at this time little difficulty in buying a run with its stock for a little money: should means be wanting, go and look out for a run for yourself, and having found one to your purpose, so situated that stock can be readily ot upon it, apply to the commissioner of Crown lands for a depasturing license. This application will secure your run for six months. After this you will be required to pay an annual sum of 10*l.* for your license from the first of July in every year; this will secure you an estate of some score of square miles, till the Government wishes to sell it, which will scarcely be in your time. Water, pasturage, &c. must depend on your own judgment. In addition to the license, you will have to pay a half-yearly tax on all the stock at your station, viz., a halfpenny a head for sheep, three halfpence for cattle, and threepence for horses.

Care must be taken not to give the boundaries of the run on too extensive a scale, but rather so to lay it out that it shall have additional outlying land which will be of no use to any one but yourself. The 10*l.* per acre license is calculated on 4,000 sheep, or equivalent number of cattle, at the rate of 2*l.* 10*s.* per thousand. Before you get your license, the capabilities of the run will be valued by a person appointed by the Government, and another appointed by yourself, as to the number of sheep or cattle it is capable of supporting; and if this exceed 4,000, you will have to pay 2*l.* 10*s.* extra for every thousand, though you have them not, which the run is adjudged to carry.

This will give you a right to the run, and also to the preemption of it, should you desire it, in preference to any other person. You may also purchase, at any time during your occupancy, a hundred and sixty acres, at not less than a pound an acre, yourself paying the expenses of the survey. If double this quantity be purchased, the Government bears the expense.

It is not our object to enter further into the complicated regulations relative to land in New South Wales, as this is not the object of the English reader, and the emigrant will obtain every particular at the offices of the Government on his arrival in the colony. Enough has been said for all practical purposes. We may, however, mention that an important alteration has taken place in reference to the quantity of land put up to sale, to suit persons of small capital, who can now purchase country land in lots of thirty acres, and that in the vicinity of towns in still smaller quantities. Squatters may now also take leases of their runs for a term of years, with a claim, at the expiration of the term, for unexhausted improvements; so that, as far as is practicable, the squatter has something like a permanent interest in his run, and, as we have before stated, has the right of pre-emption at the lowest *minimum* price of the portion which he may have improved.

Coal mines are numerous in New South Wales. As we have before stated, those in the neighbourhood of the Hunter River have been long and extensively worked. The Moreton Bay district, and the country still further to the northward, contains inexhaustible supplies of coal, so that the primary element in industrial wealth is abundant, as are minerals of every description from iron to gold. Of the copper mines it is unnecessary to speak, though those of New South Wales are numerous and highly productive. But the colony of South Australia is pre-eminently the region of copper, the Burra Burra mines being without a rival in the known world. The all-absorbing pursuit of gold, will, however, render the search after baser metals insignificant for many years.

The convict system ceased in New South Wales in 1839; but "exiles," as they were termed, *i.e.* men who had passed their probation at home, were forwarded till 1843. The total number transported to Sydney, from the commencement of the colony, was 54,583—47,092 males, and 7,491 females. All are now free.

The settlers of Moreton Bay have, however, petitioned in favour of transportation. This is owing to two causes—the scarcity of labour, and the ferocious character of the native tribes, which renders the life of a stockman insecure from the paucity of stockmen. The Government now protects the blacks to the utmost, and this renders them more insolent. They are quite aware of the extent of the Government protection, and will taunt a stockman that he dare not shoot them, lest he should be hung, whilst they will wait an opportunity spear him.

The convict system of England has been the bane of the southern colonies, at the same time that it has mainly contributed to raise them to their present position. It has been at once the blot upon the escutcheon of the mother-country, and the source of much of her commerce. In America, as in Australia, it laid the foundation of an enterprising nation; for, whatever may be his other faults, the thief is invariably a more enterprising man than the generality of his more honest neighbours, when he is placed in a position in which he needs not, or dares not, steal any more. Both countries have furnished abundant proofs of this, and both have imbibed, together with their enterprise, a spirit of disaffection towards the country from which their enterprise sprang, but which turned it, though involuntarily, to such an account. As it was in America, so, in all probability, and at no distant date, it will be in Australia. In Australia there is, however, one point for congratulation. By our convict system in America we originated the slave-trade, thus leaving a bitter curse to a young nation, after it had become emancipated from our rule. Australia has escaped both the blot and the nuisance, and has a career before her in which this drawback to her future greatness will form no element.

Considering the origin of New South Wales society, it is almost a wonder that it is not more disjointed than is really the case. It has been composed of two elements, the free and the freed, or those who have been prisoners, or are descended from prisoners. The feeling has hitherto been, that the free look down upon the emancipists, refusing to mingle with them on any terms, and the emancipists regard the free with perfect hatred. Between the two, the society of New South Wales has a worse name at home than it really deserves. This will wear off, now that convictism has ceased, and the morals of the people are decidedly improving. It is, indeed, a question, whether the morality of the emancipists is not quite as good as that of their aristocratic brethren, who are by no means remarkable for keeping the social commandments. Except in the dissipated scenes of the capital, the conduct of the middle and lower classes is all that could be wished. There is far less crime amongst them than is prevalent in England.

It is not our intention to enter further into the general statistics of the colony, than may be sufficient to give the English reader an idea of its present condition, the past being matter of history rather than of information.

The population of New South Wales, inclusive of Port Phillip, was in 1846, 189,609. At the last census in 1851, it was, exclusive of Port Phillip, 187,243; so that, notwithstanding the separation of the former, the parent colony had only decreased 2,366. In 1821, the whole population of New South Wales was only 29,783, so that in thirty years it has nearly been quintupled. The periods within which population about doubled itself, were, in the twelve years from 1821 to 1833; in the eight years from 1828 to 1836; and in the ten years from 1836 to 1846. The population of the counties, according to the last census, we have given under their respective heads.

The general revenue in 1850 was 277,793*l*.; the Crown revenue, 123,343*l*.; clergy and school estates, 4,460*l*. Total, 405,598*l*. The Crown revenue here spoken of arises from land and its contingencies.

In 1850, the number of horses in the settled districts was 74,800; beyond the settled districts, 36,400. Total, 111,200. The increase in New South Wales, exclusive of Port Phillip, had been in seven years, 54,879; or 98 per cent.

The number of horned cattle in the settled districts was 444,600; beyond the settled districts, 915,500. Total, 1,360,100. In 1850, there was a decrease of 103,600, arising from the extensive boiling down for the purposes of tallow.

In 1850, the number of sheep in the settled districts was 2,137,000; beyond the settled districts, 4,889,000. Total, 7,026,000. As we have before stated, for reasons there given, this estimate, though official, is much under the reality.

The ratio of sheep and cattle to the population, including

Port Phillip, was seven head of cattle, and forty-nine sheep, to each person.

As Port Phillip has been so recently separated from New South Wales, and as the separate returns of neither colony are yet complete, it will not be giving a just idea of the colony generally, unless we view them as they recently were—combined. In 1840, the population of both provinces was 129,000; in 1850, it was 265,000, or more than double. In 1841, the value of the exports was 1,023,000*l.*; in 1850, it was 2,400,000*l.* again more than double. In 1841, the quantity of wool exported was 8,000,000 lbs.; in 1850, it was 32,000,000 lbs., or four-fold. In 1843, the export of tallow was under 6,000 cwt.; in 1850, it was 218,000 cwt. In 1843, the number of horses in both colonies was 62,000; in 1850, it was 132,000. In 1843, the number of horned cattle was 1,017,000; in 1850, it was, 1,739,000. In 1843, the number of sheep was 5,000,000; in 1850, it was in both colonies between 13,000,000 and 14,000,000.

The above are all the statistics which the general reader can require, or that we think necessary to give, our space being required for more interesting matter. Our deduction from the above—considering the short period of the colony's existence, and the still briefer period in which it has arisen to its present importance—is, that were there not an ounce of gold in Australia, a country capable of effecting such wonders must be amongst the finest in the world, so that those who would not encounter the disagreeables of gold hunting, have no where on the earth's surface a better prospect before them of attaining that degree of comfort and independence which the state of society at home forbids to the mass of persons forming that society.

Let them compare this for a moment with the other El Dorado of the earth, California. There gold is not a blessing, but a curse. It has not yet become so in Australia, nor will it, if emigration from the mother country be properly supplied. There is a land in which crime in its darkest form is rampant In New South Wales the laws are yet respected, and any c order arising from the sudden advent of Mammon can be but temporary. In California neither property nor life is safe, the executive government is powerless, the laws are openly defied and outraged with impunity; mobs are allowed to usurp the functions of judge, jury, and executioner, perpetrating murder in the name of public justice. In none of these things does Australia resemble California; and there is a broad distinction between the political and social constitutions of the two countries. California is a republic in its most offensive form, and in a disorganized condition. Australia is a British colony. In California the sovereignty of the people is more than a match for the sovereignty of law and order, having degenerated into the worst of despotisms. In Australia the sovereignty of the Crown is implicitly acknowledged by a loyal community, who have been proof against the seductions of demagogues, who, under the cloak of religion, have sought to undermine that loyalty. In California, the country is a desert, formerly thinly peopled with semi-barbarians, but now thickly studded with men who have degenerated from civilization to barbarism. In Australia the population, previous to the discovery of gold, had risen, in an unprecedentedly short time, to a high commercial and social position, under a constitutional legislature. Her gold mines found her in a safe and orderly position, and that position she is in a condition to maintain from her population having been trained, though composed of heterogeneous elements, to obey mild laws, and respect the tribunals of justice. Besides which, California has no wealth besides her gold, whilst that of Australia, independently of gold, is illimitable.

CHAPTER VII.

NEW SOUTH WALES—INDUSTRIAL PURSUITS AND PRODUCE.

Adaptation of Australia for wool-growing—The formation of a sheep-run—First steps—Progress to the station—Hut, yards, furniture, &c.—Bush life—Profitable nature of it—Management of flocks—Arrangement of stations Lambing seasons—Shearing—Conveyance of wool to market—Shepherds' wages—Sale of stock—Boiling down—Description of boiling-houses—Diseases of sheep—Cost of sheep—Plan of sheep-farming for persons of small capital—Cattle grazing—Arduous nature of the occupation—Cattle mustering—Branding—Purchase of stock—Burning the run—The dairy—Horses—Pigs—Goats—Tobacco—American emigration—Natives.

THE chief industrial staple of Australia is wool. The number of sheep throughout the various provinces is not less than 20,000,000. It is, therefore, already the greatest wool-producing country on the globe. Not only are the manufacturers of broad cloths and a great variety of ladies' dresses indebted to Australia for their raw material, but it has also become an essential requisite amongst the manufactures of the continent. The wool produced is of the finest description, notwithstanding that the sheep are never housed or fed by artificial means, as in Saxony, from which the finest descriptions of wool formerly came. Spain alone, of European countries, can produce wool of like quality under like conditions. The extent of pasture land is without limit for any amount of population that can be placed upon it. The climate is all that can be desired for the purpose, and in no country in the world can so large an amount of produce be raised with so little labour. Yet this great staple is at this moment in danger from the abandonment of pastoral pursuits for the gold diggings.

The chief portion of the wool of Australia is produced by squatters, of whom we have already spoken. The wealthiest men in the colony are not only engaged in the occupation of wool growing, but it has produced their wealth, and that of the colony generally. We will give a description of the formation and general management of a sheep-run.

The squatter, or settler in the far interior, having first procured his run, and the license of which we have spoken, as entitling him to the sole use of it, and collected his sheep, cattle, horses, he commences by hiring men, who slowly drive his sheep towards the place of destination, allowing them to feed leisurely as they proceed. A bullock-dray conveys the baggage of the party, together with a twelve months' provision of necessaries, but no superfluities—the principal items of his *impedimenta* being flour, sugar, tea, tobacco, slop clothing, and a few necessary tools. All that he is likely to require within the period at which he takes or sends his wool for shipment at the nearest port he must take with him, or go without, for he has no chance of procuring necessaries as he wants them. Amongst the things which he does *not* take is money; were he known to possess any of this, he would assuredly be visited by a gang of bushrangers, who would speedily ease him of his superfluous cash. Should he require money in the bush, he has recourse to an order on his Sydney or other agent, with whom he has made a previous arrangement; and these orders, frequently given for very trifling sums, form the bush currency, to the no small profit of the agent, who requires to be advised of all drafts upon him, not a few of which are lost or destroyed, but for which the squatter has nevertheless to pay, the agent never advising him of that part of the transaction.

We will suppose the party encamped for the first night. A fire is lighted, and tea is made—not after the fashion of English drawing-rooms, but by putting the tea and sugar together in an iron pot, and boiling them. There are no muffins, but instead "damper," or flour mixed with water, and ed in the ashes. This is the bushman's bread, and though not over-palatable at first, like oat-cakes and similar comestibles at home, it becomes palatable by use. The cattle have of course been attended to, and those who are not on the watch betake themselves to slumber on the softest ground they can find, that under the bullock-dray being generally preferred. Sometimes, in the event of rain, forked upright sticks are set up against each other, upon which rest sheets of bark or boughs of trees, which shut off the rain and keep the sleeping-place tolerably dry. After a sound nap, without any risk of taking cold, as an English reader may suppose, the party is up before sunrise, for if not, the sheep and cattle will be, and give no small trouble in collecting. The services of the iron pot are again put in requisition, and breakfast is made—the variation from the last meal being tea and damper instead of damper and tea, very little other variation being known in the bush, with the exception of mutton, which is plentiful enough, but it is *toujours mutton*, unless a stray kangaroo can be lighted on, when the tail is converted into the most delicious soup in the world. Breakfast hastily despatched, the party proceeds, halting at mid-day, and again going forward, till tea and damper again closes the evening. This routine is followed till the station is at last reached.

The first thing afterwards is to select a place for the hut, which is, or should be, near as good a supply of water as possible. There are many ways of forming these huts, according to the conveniences at hand, and the skill of the builders—logs, mud, bark, wattles, and turf, being indiscrimately used. The stock-yards are next commenced, bush-fencing being often used for sheep, but strong log-fencing for cattle. A garden is the next thing required, and this is succeeded by a few paddocks for the growth of wheat and maize. All this having been effected, the station is formed. Two huts are, however, necessary—one for yourself and another for the men. The most easily erected are bark huts; one of these, twenty feet long by fourteen feet wide, occupies scarcely more than two days in building, and is waterproof. The bark is not the integument of European trees, but solid durable material—an inch thick, and as tough as a board. It may be cut from the trees in large sheets of fifty or sixty square feet each. The mode of building with this, as with every other material, will be readily learned in the colony, the stockmen being the best architects.

The furniture of such a dwelling is usually more useful than ornamental, the bedstead being the article on which most attention is bestowed. This consists f four posts driven into the ground at a distance somewhat approaching to the length of the occupant, and his predilection for turning over in his dreams; so that a bushman, like a Londoner, always rests on a four-post bedstead, the difference being that the posts are under instead of over him—he will sleep just as soundly on the one as the other. Upon these posts are laid two split rails, with a few cross sticks to support the sleeper, and the bedstead is complete. Chairs grow abundantly in the New South Wales forests, as any moderate sized tree cut into two-feet lengths will testify. Carpets, sofas, ottomans, easy chairs, pianofortes, &c., are considered unnecessary, and their place is usually occupied by an iron pot, a frying-pan, a spade, beef-cask, bucket, axe, sieve, hand-mill, and weighing machine; which, with a few other trifling but highly requisite articles, complete the inventory of a bushman's dwelling. If he be wise, he will add a book-shelf, and furnish it, too, to the best of his ability, for when alone in the long winter nights he will stand much in need of its contents. Such a series of works as those published at a cheap rate in the "*Popular*" and "*Railway*" libraries, would be invaluable. The only danger is, that it may tempt a visit from bushrangers, these gentry being as notorious for their attachment to literature as to plunder of a more available description.

Not that a bushman does not require luxuries, but these are as characteristic as is his habitation, and they are mostly brought into requisition when travelling. These consist of a od saddle, and saddle-bags to match, the latter serving in place of portmanteaus, a blanket, great-coat, match-box, pocket-compass, tin pot wherein to boil tea, and tea to be boiled. A good stock of negrohead tobacco completes the list, and this is an universal letter of introduction, entitling him to the best of everything everywhere, the best of this being a hearty welcome, for the hospitality of bushmen is proverbial.

It is quite possible that some readers shrink from encountering such a state of things, and involuntarily ask themselves, Are there no crossings to be swept, or chimneys cleansed, in London? If, on mature reflection, they really think thus, the best thing they can do is to remain at home and philosophically descend to these or similar avocations. But if they reflect, that such a life in a short time leads to independence—that many of the wealthiest colonists thus began colonial life—that such a life may be counterbalanced by the enjoyment of health in one of the purest climates on earth, and the equally comprehensive enjoyment of seeing wealth, the forerunner of speedy affluence, daily increase whether sleeping or waking—they may, after all, think that there is no great hardship to be endured.

We have, however, made the worst of it, purposely so, as all works on emigration should do. This is how a bushman very often does begin, and always should begin. When the drays go down to Sydney with the wool, and the old sheep and cattle are consigned to the boiling-house, their luxuries may fairly return with the returning expedition, but not till then. In a year or two the dwelling will assume a more substantial form—the wool-shed, the bushman's pride, will be erected at a cost of some *500l.* The homestead will increase, and the land may be purchased; substantial stock-yards will gradually take the place of makeshift ones; but all this only out of profits, never out of capital. People may talk of a capital of *5,000l.* being necessary to be expended on a stock-station before it is occupiable—do not believe them; some of the largest stock-stations in New South Wales have been formed originally with less than that number of shilling

Prudence and industry has done all the rest, and will do it again. From the increase of sheep, the sale of wool, the fat wethers and cattle, and the impossibility of spending money in the bush, the squatter must become wealthy in spite of himself. But he must attend diligently to his own interests, or his men will very soon become negligent of them, and all will go wrong. His only companion will be his horse, and the companionship should be inseparable, except when sleeping. His eye on every movement will do as much as his capital. This will be his amusement; for without constant occupation his time will hang heavily on his hands; and shut out, as he will be, from society, without occupation he will be miserable. He has only one stumbling-block to avoid, and that is, if he go with his wool and his cattle to Sydney, not to spend the whole of his year's profits in dissipation, as is done in one-half of the instances in which men take their own produce to market, squatters being as proverbial as sailors for getting their money like horses and spending it like asses. The most prosperous among the squatters never go near Sydney for years, remaining at their stations till their habits of industry and temperance—the latter a habit, perforce, where nothing stronger than tea is to be obtained—become fixed. They are then safe, and, though stationary, are going at a rapid pace on the high road to wealth, and consequently influence. Any young man, with moderate capital at the outset, may thus return home to spend his prime of life in independence. Few, however, will be inclined so to do. England, with its artificial and heartless society, is just the last place in the world that a herdsman would wish to retire to. His early associations are broken up, and the only real tie left, the desire of mingling his bones with those of his forefathers in the village churchyard, will hardly be powerful enough to detach him from his adopted country.

We will next lay before the reader a concise account of the management of flocks; and by the term flock he must understand the number placed in charge of one shepherd. A station is generally composed of more than one flock, though it is not considered good farming to have more than two at the same station. Two can be managed by two shepherds and a watchman, who in the day-time acts as hut-keeper, and is responsible for the safety of both flocks at night.

The number of a flock varies from 500 to 700, according to the pasturage on the run. It is not well to have too many, as the sheep would have to travel a great distance for their food, and would thus increase the risk of loss, besides being under less easy control. The flock is daily driven out of the stock-yard to feed, and brought home every night, when the shepherd hands them over to the watchman, who sleeps in a wooden box near the folds. This precaution is necessary to prevent the attacks of native dogs. In the day-time, it is the duty of the watchman to keep the yards scrupulously clean; or, if hurdles are used, to shift them daily. Each shepherd has a dog, as has also each watchman; though some stock-farmers will not permit dogs to be kept at all, the shepherds trusting to the dogs, which harass the sheep, and prevent their feeding properly.

If two stations are placed in the same run, the distance between them is seven or eight miles, so as to allow them to feed in a circuit of three miles round each station without the flocks mingling. Three acres to the sheep is generally considered the average capability of the run, or 213 sheep to the square mile. The sheep will breed all the year round, but it is considered bad farming to allow more than one crop of lambs per year, as two injure the ewes, and the lambs are sickly, neither is the fleece so heavy. The proportion of rams to ewes is from ten to twelve per flock; they remain with the flock about six weeks, and afterwards run with the wethers, at a station apart from the breeding station. One thousand wethers may be kept in a flock.

There are two lambing seasons, the first in March and April, the second in September and October. The latter is preferred as to season, but the April lambs have the advantage of a good fleece by the end of the year. The lambing season is a busy time with the shepherd, and is a test of his skill and vigilance, no small difficulty being sometimes encountered in getting ewes to take to their lambs, a considerable inducement thereto being to rub the lambs with salt, of which sheep are fond. It is common to allow a premium to those shepherds who rear the most lambs. From eighty to ninety lambs reared from every hundred ewes is considered creditable to the shepherd. The number of lambs reared sometimes, though seldom, equals the number of the sheep. The lambs are weaned at from five to six months old, all the males of several flocks being put together to form a wether flock, and all the females to form a future breeding flock. The ewes breed at eighteen months old.

Shearing time is in November. The sheep are first washed, and then left for three or four days to dry, and to permit the grease to rise from the animal's body into the wool, thus giving it weight and softness. After washing, care must be taken not to pasture the sheep on unclean ground, as the wool would be injured in consequence. Shearing is performed in large sheds, which keep out both rain and heat. One man will shear three score per day, at the rate of two or three shillings per score, with his board. Shearing is a separate occupation, men travelling from station to station for the purpose. As the fleeces are detached from the sheep, they are pressed into bales, as they arrive in England. Each bale contains about 100 fleeces, or 250 lbs. of wool. The wool-pack is placed empty in a strong box, and the fleeces are trampled down as closely as possible as they are put into the pack.

The next step is to convey the wool to market; this is done in bullock drays, which will convey from fifteen to twenty bales each. On arriving at Sydney, the bullocks are slaughtered, and the drays sold, with the exception of those necessary to carry back the next year's supplies.

It would be impossible to give, in the present condition of the colony, anything like a correct idea of the rate of wages. At present, the wages of shepherds such as would preclude wool-growing at a profit, unless the market-price should be considerably raised. This, however, cannot last: the balance of labour will ere long be restored, from the immense rush of men from all the neighbouring colonies to the gold mines. The unsuccessful there will be glad to return to their old occupations, and a temporary inconvenience will, perhaps, be all that will be felt. In ordinary times, the wages of the shepherd are from 18*l.* to 22*l.* From 25*l.* to 35*l.* have, however, been frequently given, and this is exclusive of rations, viz., 10 lbs. of beef or mutton, 10 lbs. of flour, 2 lbs. of sugar, quarter of a pound of tea, with sufficient salt. This is the weekly allowance to the men. In addition to which, they have generally the use of a milch cow, and it is their own fault if they have not a garden and poultry. Agricultural labourers in England may judge of the condition of Australian shepherds in comparison with their own at home, where the Dorsetshire or Buckinghamshire labourer has to keep himself and family on seven shillings a week. Many New South Wales shepherds are also small stockholders. They have every opportunity of saving their wages, and many avail themselves of it, investing these in sheep, to become eventually flocks of their own. Any industrious and intelligent young man may, if he please, become in time a flockmaster, even if he did not land with a shilling in his pocket. The process is a certain one, which nothing but his death, or neglect of his own interests, can stop, and the field for his exertions is illimitable.

The wool is the first profit of the farm, and fetches in the Sydney market from 1*s.* to 1*s.* 3*d.* per lb. according to quality, always meeting with immediate sale, or rather with immediate competition amongst the merchants to get it. The next profit is the sale of the old ewes and the wethers to the butcher, or for boiling down for the sake of the tallow. Old ewes, like wethers, are kept in a separate flock, and soon fatten, if not permitted to breed. Wethers are generally sold at three years old, but are sometimes kept till four years old for the purpose of the butcher, the meat being better, and the wool will pa for the extra year's keep. The average weight of the carcass is about sixty pounds, and the value of each sheep, though this varies, is from seven to nine shillings.

We come now to the boiling-down process. About ten years ago, during a monetary panic in the colony, the price of sheep fell to a ruinous extent; so much so, that they were actually sold for *a shilling* a head in Sydney, and for *sixpence* a head on the station, the owner of which was in the insolvent court. In this dilemma—for the ruin of the stock-farmers was universal, and for the most part brought on by extravagance and reckless speculation in land — it occurred to some who saw farther ahead than their neighbours, that England imported large quantities of tallow from Russia and other countries, and why should she not from New South Wales?

The hint was acted on, and in a few weeks the price of sheep had risen considerably. It was placed beyond doubt that the value of sheep could not again fall lower than the value of their tallow, *minus* the expense of extracting it, viz., about 6*d.* per head for sheep, and 5*s.* a head for cattle, which is considerably less than the value of the skins, hides, and lean parts of the animal. In some boiling-down establishments, the tongue and hide of a bullock will be taken as payment for boiling, thus leaving to the farmer all the tallow of his sheep, and the tallow and lean part of his cattle. It was thus that the now extensive tallow trade of Australia arose.

Now, sheep and oxen are boiled down by thousands for the sake of their tallow, bones, wool, and skins; the refuse feeds an immense number of pigs, and the legs of sheep and bullocks are sold at a penny per pound. The rounds of bullocks are often salted, and the legs of sheep converted into mutton hams. Of late years, a considerable quantity of the lean meat is preserved in hermetically-sealed canisters, when it will keep good for years, and is thus used as fresh provisions at sea. This has now become a regular article of export to England, so that little is now wasted, as was formerly the case, from a deficiency of mouths in the colony to eat the meat produced. Let the half-starved labourer at home, who can get no meat to eat ponder over this state of things in Australia.

The boiling-houses are necessarily placed at some distance from the towns, not only from their offensive smell, but from their repulsiveness to sight, large herds of animals being slaughtered with incredible celerity, chopped up, and thrown into the boilers with their flesh yet quivering. When in the coppers, the tallow floats on the surface, and is drawn off by a hose into the casks, in which, when cool, it is ready for shipment. The gelatine of the meat runs to waste; it was at one time made into cakes, and sent to England, but there is a prejudice here against it, and the speculation did not succeed, though it is a well-known fact that the tavern-keepers and confectioners of London use a fine kind of glue to thicken their *rich* soups, ox-tail soup being thus for the most part made from ox-hides in Bermondsey. The rich gelatine of the Australian cattle was not, however, so much esteemed by them as the Bermondsey glue, which continues to delight the palates of soup consumers as heretofore, though those consumers little suspect what they are eating. A cubic inch of New South Wales gelatine, which will keep good for years, makes a pint of strong gravy, or mixed with flour and oatmeal, a quart of strong nutritious soup. Such an article of food, it might have been thought, would be invaluable in England, its cost being trifling, but English prejudice sticks to the Bermondsey glue in preference. There is no accounting for taste—English taste at any rate.

In 1849, there were boiled down in New South Wales, 165,701 sheep, and 33,097 head of cattle, producing 60,841 cwt. of tallow. Cattle only pay for boiling when they are under two pounds per head, but when they come to Sydney with the wool-drays, they are boiled as a matter of course, as it is not worth while to drive them back to the runs. The tallow of a sheep, at the present London prices, yields *5s.* per head, after all expenses are paid; that of a bullock, averaging t hundredweight, will produce upwards of *3l.* in Sydney that boiling-down has become a safe speculation, whilst the price of stock to the butcher can never become less than its value, when converted into tallow, skins, bones, gelatine, and mutton hams, equal in flavour to Yorkshire ones. The Chinese, who are great epicureans in their way, are much attached to the mutton hams of Australia.

The diseases of Australian sheep are scab and catarrh, the latter a species of influenza, fearfully fatal and rapid in its progress. The best remedy is at once to kill and burn the diseased animal, or the contagion will rapidly spread. The best prevention is change of pasture.

It is difficult to say what the price of sheep would be on the arrival of the emigrant in Australia; but from what has been stated, it could not be under their boiling-down value. Let us suppose that at the stations they may be bought at seven shillings a head, and this will probably be not far from the mark, and we will make a calculation as to how a person of moderate capital may invest it in sheep without either buying land or becoming a squatter, as we hinted in our first chapter; all that is necessary being, that he should make an arrangement with a respectable stock-farmer.

We will suppose an agreement to have been made that the stockholder shall receive the sheep of the new comer on *halves*,—*i. e.* half the increase of the flock, and half the wool. Suppose a flock of 600 to be purchased; these, at 7*s.* a head, will cost 210*l.* At the end of the year the stockholder will deliver 300 fleeces in Sydney, weighing 750 lbs., which, at only 1*s.* per lb., would realize 37*l.* 10*s.*, or nearly 19 per cent. in cash on the outlay. In addition to this, the 600 ewes will have reared at least 500 lambs, of which 250 will have to be added to the original flock of 600, making 850. In the next year, your proportion of the wool will be 425 fleeces, weighing 1,062 lbs., which, at 1*s.* per lb., gives a second year's income of 53*l.*, or 26 per cent. on the original outlay. Your share of the increase will have brought your flock to considerably more than 1,000, making very large allowance for death and casualties of all hinds; so that the value of the flock has already increased to 350*l.* Before the close of the third year, the lambs will have begun to breed, and before the close of the fourth, the number of the flock will be over 2,000, the value being 700*l.*, and the income from 1,000 fleeces, weighing 2,500 lbs., 125*l.* The reader can go on with his calculation; but by this time he would be ready for a station of his own, with abundant experience wherewith to conduct it, and instead of *halves* he would now get the *whole* proceeds. What these would amount to he can calculate for himself. It is somewhat questionable whether gold-finding would have paid him better, or more satisfactorily.

We might go on with the subject of sheep-farming *ad infinitum*, but enough has been said for all practical purposes which the intending emigrant can require. We will now proceed to the cognate subject of cattle-farming.

The occupation of a cattle-grazier is no child's play. That of a sheep-farmer is easy in comparison. He must be a first-rate equestrian, or trust to those who are so. A New South Wales stockman would astonish an English steeple-chaser, and surpass in feats of horsemanship anything which an English rider would attempt; for in addition to the objects under foot to be leaped over, as trees, great chasms in the earth, apparently without bottom, and similar obstacles without end, all previously unknown, and suddenly come upon, the rider has to keep an equally sharp look-out for the safety of his brains, which are often in momentary risk of being dashed out by the projecting branches of trees. This double danger renders the New South Wales stockmen the finest horsemen in the world, exceeding in reality all that we read of the feats of Arab horsemen in the romances of travellers. As in a cattle chase the horseman has no time for thought, he usually trusts to his horse to avoid the dangers beneath his feet, whilst he looks out for those over his own head. If he thwart his horse, or otherwise confuse him, woe be to both horse and rider. But if the horse be not thwarted, and understand his business, in which he delights as much as does an English hunter, he will perform everything required, and bring his rider safely through. There is only one point in which the cattle-hunter will have to exercise his discretion independently of his horse, and that is when discretion becomes the better part of valour; in other words, when the cattle he is pursuing at a racing pace turn round and pursue him at an equally rapid pace. Then an inglorious flight is the only alternative, and if this be not promptly conceived and executed, it will not be long before his horse is ripped up, and himself placed not on the horns of a dilemma, but upon those of an old bull, when he may think himself lucky if he sustain no farther damage than being deposited among the branches over his head. New South Wales cattle never pay the slightest respect to their owners.

It will thus be seen that although sheep-farming might be conducted, as the poets figure—with a crook decorated with flowers—cattle-farming is a very different affair, and these cattle hunts require to be followed two or three times in every year for the purposes of inspection and branding, when they are again dismissed to their runs. The horses selected are usually old, as well in cunning as in years. None but riders thoroughly accustomed to their work should engage in cattle-hunting or collecting, though the sport is infinitely more exhilarating than a fox-hunt; but without experience it is highly dangerous. The muster is thus conducted. The grazier sends for his neighbours, who repair at the summons to his station, expecting similar aid from him in return. The horses, say a dozen, are all saddled, each rider being armed with a stock-whip, the handle of which is about a foot long, and the thong twelve or fourteen feet. With this fearful whip an experienced hand can cut a piece clean out from the skin and flesh of a bullock, and the crack of the whip can be heard for miles. All being now mounted, not in red jackets, but in shirt, trousers, boots, and spurs, they set out for the run, accompanied by a few dogs, having arranged each to take a particular direction converging to an appointed place of rendezvous.

No sooner have they separated on their different errands, than the cracking of the dreaded whip resounds through the forest in all directions; the frightened cattle—the old ones amongst whom know by experience what is coming—hasten with alacrity to their usual camping-place, the stockman in full speed after them, heading them, if necessary, and driving them towards the appointed rendezvous; the others, who have been similarly engaged, have their charge also bearing down on the same spot, where most of the cattle on the run are ultimately collected, and the journey towards the stock-yard is commenced.

And now commences the sport in earnest. The mob of cattle is in a state of perfect excitement, ready to dash at any thing. Not a few of them have already had a taste of the dreaded thong, the cracking of which still resounds through the air from every direction, accompanied by the shouts of the riders. Cows are lowing for their lost calves, and these for their mothers; rival bulls are furiously menacing each other, only again to be reduced to order by the whip; bullocks are bellowing, dogs barking, horses prancing, and altogether the scene is one of as pretty confusion as can be imagined.

Onwards they go, the cattle evidently meditating escape or mischief. The front gets into a gallop, which is speedily checked by the stockmen. A declivity is before them, and away goes the mob down the hill, stockmen after them at a killing pace. Clouds of dust arise, which at a distance resemble those of the African deserts moving before the wind. The pace increases to a flying one, yet the horses at full speed will turn instantly and head back the cattle, performing feats of suddenly twisting and turning which with an English horse would be considered impossible.

As the mob approaches the stock-yard, a last desperate struggle is made to escape, for the cattle well know that the cruel operation of branding is before them. This is all their reminiscence of the stock-yard, and having once gone through the operation, they are not likely to forget it. The stockmen are on the alert, as well as the horses, the latter watching ever movement of the cattle, and as instantly heading it. The rush is made, and again defeated, though with difficulty, and the cattle are at length safely enclosed, but not before the horses and riders are one mass of mud, arising as much from dust and perspiration as from any other cause.

The branding is effected in a cruel manner. The animal is noosed, and dragged to a part of the stock-yard near where a large fire has been kindled; he is then immoveably fixed, and a red-hot iron, the mark of the owner, is placed on his body, and there kept till the brand has burned completely through the hide, when the beast is loosed, to carry with him the remembrance of his sufferings till the next visit to the stock-yard. He is, however, then only a spectator of the sufferings of others, as his own mark is indelible. His repugnance to muster-days is scarcely to be wondered at.

A cattle station, on a remunerative scale, is a more expensive affair than a sheep station. The stock-yards have to be constructed of stronger materials, and of a more durable character. The expenditure before any adequate return is also much greater. Few people emigrating from England, and inexperienced in the management of colonial cattle, would be likely to take upon themselves such a charge at first, whilst any intelligent person would be fully equal, in a short time, to manage a flock of sheep. We will, however, give a general view of a cattle station.

The first herd, which is to lay the foundation of a grazing farm, should consist of cattle of all ages—cows, heifers, bullocks, steers, and calves, in about equal proportions. If cows and heifers alone are bought, three or four years must elapse before the increase of the herd is available, and beasts would have to be bought both for the purposes of draught and food. From three to five hundred of a mixed herd is considered sufficient for a start. A good herd of five hundred would cost, say, from 1,200*l.* to 1,500*l.* and would require a good bull to every fifty cows and heifers. The cost of a superior bull ...uld be 10*l.*

The run must be carefully selected. It is a difficult matter to remove a herd of cattle to another run, so that the station fixed on should have every requisite to ensure permanency, or much loss may ensue should necessity arise for removal. Substantial stock-yards would become useless, and fresh ones would have to be constructed. Besides which, there is great risk in removing cattle to a new run, from their propensity to return to the old one, which they will do, even for hundreds of miles. As they are not housed at night, except at first, there is no check on this, and the attachment which they manifest to their former home is always a difficulty in forming a new station. It will not do to increase the difficulty by a second removal.

The first step is to burn the run; however luxuriant may be the grass, they will not in general eat it; but when burnt, they thrive well on that which afterwards springs up. The conflagrations thus caused are sometimes very extensive. Before the cattle are brought on the run, the stock-yard must be erected, as at first it will be necessary to confine them every night to prevent their escape. The building of huts, and the laying out of gardens and paddocks, must be the same as in forming a sheep station. The requisite necessaries are also similar; but all matters of this kind are best learned from experience in the colony.

The chief care requisite, at first, is to render your herd as tame as possible, by constantly milking them, even if the milk is thrown away. The formation of a dairy is not, in outlying districts, considered remunerative, except as reducing the cattle to better order, and this is a great point gained, as being the most efficient method of taming the herd, from their being frequently yarded. Cattle in Australia are subject to few diseases, the principal one being the black leg, which is easily cured.

Horses are another source of profit, and are in universal use. Every one can keep his horse, and every one rides. There is also now a considerable demand in India for Australian horses, which are preferred for cavalry purposes, some of these having fetched as much as 80*l.* each; so that, to an emigrant who understands horse-breeding, a large field is open for the exercise of his capital and judgment.

Colonial horses are remarkable for their endurance. No distance seems to tire them; they are proverbially sure-footed, and manifest high spirit. Mules of large size are also common, but they are not considered of much use to the stockman.

Pigs are numerous, and easily fed. Goats are also a source of profit worth looking after. They are more hardy than sheep, and will thrive on runs which are useless for any other purpose. They are not liable to disease, and increase rapidly, usually bearing twins. They are easily taken to market, and are valuable for their tallow, which is of better quality, and commands higher prices, than any other. Goat farming could scarcely fail to become remunerative to persons of small capital.

The tobacco plant grows remarkably well in New South Wales, and, as has before been stated, a considerable quantity is manufactured, chiefly at Maitland, for home consumption, and for export to the neighbouring colonies. Nearly all used in New South Wales is of colonial manufacture; and the excellence of the article may be estimated from the fact that, not long ago, a portion of the Hunter River tobacco was seized by the Excise, which declared it to be American of the best quality, and therefore liable to the duty on foreign manufactured tobacco.

Gum arabic might be collected in New South Wales in large quantities, and, the indigo plant being indigenous, requires only cultivation to rival that of Bengal. The castor-oil plant might readily become an object of commercial importance, as it flourishes luxuriantly. The silk-worm, too, thrives admirably, and very beautiful specimens of silk, equal to that of China, have been produced. We will not go on enumerating these minor productions, further than is necessary to shew that the dustrial resources of the colony are as abundant and as xhaustible as is its gold. If a knowledge of its capabilities could be widely disseminated amongst the struggling population of Great Britain, the desire for emigration would be a hundredfold what it is, and few who could get to Australia would think of emigrating, as they now do by tens of thousands, to the United States, where by no means a healthy climate, and very few of the advantages which Australia presents, await them.

Having mentioned American emigration, and in this we include British America, it will not be uninteresting to institute a brief comparison between the countries. In Australia there are neither ague nor yellow fever, which cut off thousands in America. In the latter country labour is paid by the truck system—in Australia in hard cash. If Australia had formerly its convicts—though not now—America has its slaves. In British America, and the northern part of the States, the country is many feet deep under snow for a great portion of the year—in Australia snow is unknown, except in the mountains. The climate of the former region is unhealthy—that of the latter genial and health-giving, being also in this respect invariable. An agriculturist arriving in America after seed time, loses a whole year—in Australia he can go to work, with some crop or other, at any time of the year, and even with regard to cereal crops he can lose no more than half a year. The voyage to America, in the actual time occupied at sea, is, it is true, a few weeks shorter than that to Australia, but it is highly dangerous, and proverbially full of discomfort; whilst that to Australia is the safest in the world, and at the same time the most comfortable. But if we take into account the actual time before an emigrant gets located, this time is greater in American than in Australian emigration. In Australia he is at his work as soon as landed—in America, and in Canada especially, he has a dreary and expensive march, perhaps of months, into the interior, before he can settle down. These things are well worth the emigrant's weighing, together with the patriotic consideration that he is still on British ground and in British society.

Closely connected with the pursuit of squatting is the subject of the aborigines of Australia, with whom the stock-farmer will necessarily come in contact. They are termed by naturalists Papuas, and, as a body, they form the most unintellectual species of the human race. In appearance they are in many cases revolting—reminding the European of the link between himself and the baboon, whose cunning they emulate, without any of the higher attributes which distinguish even savages in other parts of the Southern Hemisphere. The men have thick prominent lips, sunken eyes, high cheek bones, calveless legs, an unsightly protuberant abdomen, and club-shaped feet. In youth some of the females are not unpleasing in features, but all are distinguished by the same shrunken legs, whilst their arms, which seem nothing but skin and bone, are like those of the monkey tribe, of disproportionate length to the body. All go perfectly naked, except in some towns, which they are not permitted to enter in that condition. To an European a more disgusting sight can scarcely be encountered than these people present: their black skin, covered with all kinds of greasy abominations; long coarse hair matted with gum, after the fashion of a thrum mop, and frequently stuck with kangaroos' or human teeth; the roof shape of their heads, with the sensual formation of the hinder part of it; the mouth of the men, minus the front tooth, &c. &c., combine to impress the beholder, the new comer especially, with anything but the philanthropic idea—"Am I not a man and a brother?" a sentiment which till of late years the stockmen repudiated by shooting all they came across, or, as was often the case, poisoning them by wholesale, so that the older settled districts of New South Wales have scarcely any left of a former numerous population. Not many years have elapsed since a bitter feeling was created throughout the colony against the Government for hanging several stockmen who had murdered some natives under circumstances of peculiar atrocity, in revenge for the murder of one of their comrades by another tribe. To hang a settler for murdering black fellows was regarded as a tyrannical innovation; but the example has had the effect of putting a stop in a great measure to what before was considered little more crime than shooting a kangaroo or an emu,—though the blacks in general provoked all the hatred they met with, and the interference of the law in their favour has neither amended their insolence nor their barbarity. Nothing can extenuate the barbarity which has in former times been shewn to them by the white usurpers of their country, but, independently of this, they are a barbarous race, deaf alike to the lessons of religion or civilization, having neither the capacity nor the desire to improve their condition, whilst industrial example is altogether thrown away upon them. Even the missionary has given them up in despair.

In point of intellect, or rather the want of it, there is a trifling difference in some of the tribes in different parts of the country, but they are all from the same stock, and possess in common the same attributes, combined with treachery and ingratitude. They are few in number, and their constant wars, and difficulty of living, now that the kangaroo has become scarce, as well as the hostility of the whites, are fast thinning even that number. They live on fish, snakes, grubs, gum, roots, and the sheep they can steal, nothing that will bear mastication coming amiss to them. They build no houses, nor will they inhabit them if built for them, as was done by a philanthropic governor, who concealed his benevolent intention till the houses were ready, when, upon taking the tribe to their domiciles, he was met with laughter, accompanied by the remark from their chief, "Berry good, Massa Guberna, 'pose he rain, but no good for black fellow." An overhanging rock, a cave, or in the absence of either, a strip of bark, is all they care for in the way of shelter. Their only notion of a canoe is a wide slip of bark, tied together at each end, and stuffed with clay, and with this they will cross a river. In some places they will, however, now so far imitate the white man's boat, as to hollow out a tree by fire. They are dexterous fisherm and the net, woven by the women, is the only approximation to ingenuity.

Their cutting implements are of stone, stuck in a cleft stick; their weapons, the spear, upon which they lavish great pains, boomerang, waddie, or club, a small stone tomahawk, and a bark shield. The spear is a light straight stick, as thick as a man's finger, and about ten feet long. It is either sharpened by fire or barbed with sharks' teeth, and is a formidable weapon in their hands, the aim being unerring at fifty yards. It is thrown by the woomera or throwing stick, a piece of wood two or three feet in length, three inches broad at one end, and going off to a point at the other, which has a small hook. This is inserted in a hole in the spear, and has the effect of a sling, enabling the thrower to send his weapon a hundred yards, and woe be to the stockman who encounters it at half that distance.

The boomerang is a puzzle, and even mathematicians cannot comprehend the law of its action. It is a piece of curved, hard wood, in the form nearly of a parabola; it is from thirty to forty inches long, about three inches broad, pointed at both ends, the concave part a quarter of an inch thick, and the convex edge quite sharp. The mode of using it is as singular as is the weapon. Ask a black to throw it so that it may fall at his feet, and away goes the boomerang for forty yards before him, skimming along the surface at three or four feet from the ground, when it will suddenly rise into the air for fifty or sixty feet, describing a curve, and finally drop at the feet of the thrower. During its course it revolves with great rapidity, as on a pivot, with a whizzing sound. That so barbarous a people should have invented a weapon of this description, which civilization never contemplated nor can explain, is a wonder, setting the laws of projection at defiance. In the hands of a European, even, it is as dangerous to the thrower as to the object aimed at, for it may return and strike himself, whilst, in the hands of the native, it is a most formidable weapon, which strikes without giving the slightest idea where the blow comes from; his assailant may be behind a thicket which separates the two, and thus the weapon is literally like the Irishman's gun—one which will shoot round a corner. The weapon no doubt originated in kangaroo hunting, it being necessary that the animal should not see his assailant. He is nevertheless struck down with unerring certainty, even though a copse intervene; the boomerang comes round the corner and breaks his legs.

The waddie is also formidable, from its size and weight. This, like Manton's pistols, is the weapon of honour,—for the black fellow of New South Wales, like his brother savage of the Guards or the line, has his own peculiar notions of demanding satisfaction. The combatants being placed, the party challenged holds down his head, so as to present the top portion of it to his challenger; when down comes the waddie, with a blow which would crush in the skull of an ox, but has very little effect on that of the person struck, from the extraordinary thickness of his cranium. The challenger now holds down his own block in return, and receives the same compliment, and so on alternately, till one has his head really broken, or has had enough; when honour is pronounced by the bystanders to be satisfied. English gentlemen, whose seconds take care that they fight with leadless pistols, might adopt the method of the Australian savage with manifest advantage. There is, at any rate, fun in it for the lookers on, and some trifle of danger, but it is much to be doubted whether mock English honour would endanger its skull by the application of the honest waddie of the savage, which would speedily solve the question as to whether the combatants of civilization had or had not any brains.

Polygamy is practised among the savages of Australia, and the method employed in obtaining a wife would hardly be approved of by the sylph of the drawing-room at home. When the ardent lover has made choice of his future spouse—generally a young woman of another tribe—he steals into their encampment at night, and having applied the waddie in the beforementioned manner to the poor girl's head till she is perfect senseless, he drags her off through the bushes, as a tiger would his prey. A fight with spears and waddies, between the tribes, always follows, including a duel between the lover and some relative of his wife. After a few persons are speared, and others have their heads broken, all parties become friendly, and the loving couple are declared married.

These savages are cannibals. They have neither religion, form, ceremonial, nor idol. They are superstitious to a degree, and believe that the white men are re-incarnations of their own relatives who have died. They bury their dead with neatness, and have many devices to keep the devil—for they believe in *him*—from running away with the body. Though they will labour at times for the purpose of gratifying a whim, they are inveterately idle. They are capital shots, and hunt their prey by track and scent, like a foxhound; hence they are often employed by the police after runaway prisoners. Their other qualities are not worth enumerating:—they have, in short, every bad one which humanity should not possess, and many of which their congener, the baboon, would be ashamed.

CHAPTER VIII.

THE GOLD FIELDS OF NEW SOUTH WALES.

First notification of gold discovery—Summerhill Creek—Abercrombie River—Hundredweight of gold—Turon—Geological character—Frederick's Valley—Exports of gold—Gold localities—Geological observations by the Rev. Mr. Clarke—Present state of New South Wales—How to look for gold—Tests of gold—Gold extraction—Separation of gold—Gold washing—Assaying.

The first official notification of the discovery of gold in Australia is contained in a despatch from Governor Fitzroy to Earl Grey, and bears date May 22nd 1851. In this he announces the existence of a gold field to the westward of the town of Bathurst, at a distance of about 150 miles from Sydney; at the same time adding his suspicions that the nature and value of the discovery had been exaggerated, and that the gold sent for inspection was Californian gold; nowithstanding this, he deemed the accounts sufficiently important to require an efficient police to be placed on the Bathurst road.

A communication from Mr. Stutchbury, the geological surveyor, now undeceived his Excelleney. On the 19th of May that gentleman wrote from Summerhill Creek, that gold had been obtained in considerable quantities with no better washing instrument than a tin dish, which sufficed to procure one and two ounces per day. At the same date he reported that 400 persons were hard at work, and that the gold existed not only in the creek, but far above its flood line, thus affording evidence of its general existence. The camp of the goldfinders was called the city of Ophir, and the first public record it had was the following postscript added by Mr. Stutchbury, "Excuse this being written in pencil, as there is no ink in this city of Ophir."

The previous existence of gold among the mountains had been long suspected, not only by geologists, but by others on more practical grounds. In 1848, Sir Roderick Murchison had come to the conclusion that the whole dividing range contained gold, and suggested to Earl Grey the adoption of a system which should give encouragement to gold seekers. The Rev. Mr. Clarke, a local geologist, had also expressed his conviction that gold existed in considerable quantities amongst the Blue Mountains.

The practical proofs were, that a shepherd had long been in the habit of bringing lumps of gold to Sydney, but refused to state where he got it. About two years before its actual discovery, a Mr. Smith, who was engaged in some iron works in the vicinity of Berrima, produced to the Colonial Secretary a lump of gold imbedded in quartz, and asked a large sum for naming the locality: this was refused, and Mr. Smith kept his secret, but not long.

On the 3rd of April 1851, Mr. Hargreaves, a settler who had been to California, and while there was struck with the similarity of the Californian mountains to those he had just left in New South Wales, returned from the former country in search of gold, and as he had expected, found it. He, too, made an offer to the Government to discover the locality for the sum of 500*l.* This was refused, and on the 30th of April he addressed another letter to the Colonial Secretary, stating that he was satisfied to leave the remuneration for his discovery to the liberal consideration of the Government, and named the locality in which gold would be found. This was amply verified, and Mr. Hargreaves, the Rev. Mr. Clarke, and Mr. Stutchbury received appointments connected with the gold fields, at Summerhill Creek and its immediate vicinity.

In the mean time, the excitement rose to a high pitch throughout all classes of the community; thousands wending their way to the gold fields, and mechanics and tradesmen deserting certain and lucrative employment for the prospect of sudden wealth. The Governor was willing to have prevented this for the sake of peace and order. He issued a proclamation, claiming the gold fields as the prerogative of the Crown, threatening with prosecution those who should dig gold. People only laughed good-humouredly at the proclamation, and hundreds flocked out of Sydney for the hard labour and exposure to the winter season in an elevated region like the Bathurst mountains.

Finding it impossible to check the search for gold, the Government prepared to turn it to account, by adopting a system of licensing to dig for gold. An amount of thirty shillings per month was demanded for the purpose, and cheerfully given, from the large quantities of the precious metal extracted; and this system continues.

The disclosure of Mr. Hargreaves as to the gold localities, included Summerhill Creek, a locality in the county of Bathurst, near Frederick's Valley, about 144 miles from Sydney—a "creek," in New South Wales jargon, means a water-hole in the interior, and not an arm of the sea, as we understand it—this is about thirty miles from Bathurst;—Lewis Ponds, a similar chain of water-holes, which, when full, form a continuous stream running into the Macquarie River—and the Macquarie River itself, which has been described in a former chapter. In addition to this, Mr. Hargreaves disclosed another mysterious spot, which was kept secret, and hence the report prevalent at the time that there was a gold field discovered, from the richness of which the Government was concealing all further knowledge relative to it.

On the 13th of May, a man had brought to Bathurst a lump weighing 13 oz., valued at 30*l.*; this renewed the excitement in the vicinity, and every one started to the diggings many being rewarded with still larger prizes. The principal point of attraction was the spot below the junction of the Lewis Ponds and Summerhill Creek, forming a natural dam across the creek about a quarter of a mile in length. There were several of these dams, which have since been found to contain gold. The creeks take their rise in Frederick's Valley, a locality in the county of Bathurst, about 153 miles from Sydney. Here lies the estate of Mr. Wentworth, for the working of which a company has been formed in Sydney. The country around is poor and unfit for pastoral purposes. Coomling Creek, which falls into the Belubula River, was the next gold locality, and then the Belubula itself. This river empties itself into the Lachlan.

By the 25th of May there were 1,000 people at the Summerhill Creek, working hard upon a surface of not more than a mile in extent, and lumps were found varying in weight from 1 oz. to 4 lbs. "Nugget" is the local term for such specimens. The large pieces were generally got out of fissures in the rock—clay-slate—which forms the bed of the creek. The smaller grain gold is procured by washing the alluvial soil resting upon and filling in the cleavage joints of the rock. The high lands in the vicinity are mostly surmounted by basalt, thickly traversed by quartz veins. Much of the gold bore evidence of its having originated in the quartz, thus affording evidence of the inexhaustibility of the mines as long as quartz was left.

The gold here obtained, and it may be taken as a specimen of the whole, gave, on assay, gold, 91·000; silver, 8·333; base metal, 0·567. The gold is, therefore, 22 carats, value *3l. 17s. 10½d.* per oz., and contains 1 dwt. 16 grs. of fine silver to the oz., value *5½d.*, making the value of Australian gold *3l. 18s. 4d.* per oz., though it is selling in the colony at from *3l.* to *3l. 5s.*, thus yielding an enormous profit to the purchasers.

Gold was now found on the Abercrombie River, which flows through the county of Georgiana into the Lachlan. In the ks running south from the Corrobola, principally in Oakey

Creek. In the whole length of the Macquarie from Bathurst to Wellington. In the Curracurra, &c.

The Turon workings were next discovered. This river rises near Hartley, and after a course of 100 miles flows into the Macquarie. It contains gold the whole way, and upon this river are now seated some of the most productive gold fields. The gold here is never found in the sand, always sinking to the soil, a hint which emigrants will do well to bear in mind.

The Macquarie has also been examined from Burrendary to Dubboo, in the Bligh district, about twenty-eight miles from Montefiores. In many places the gold was found scattered on the surface.

On the 5th of June, the number of licenses taken out was 200; and on the 17th, the Governor communicated to Earl Grey the startling announcement, that a "nugget" had been found containing a mass of pure gold weighing no less than *a hundred and six pounds*. This was found at the junction of the Meroo and Merinda creeks, tributaries of the Macquarie, situated fifty-three miles from Bathurst, and thirty from Wellington. This is the largest mass of gold ever found. In California twenty-eight pounds were found in one place, and in the Museum of St. Petersburgh there is a lump from the Oural Mountains weighing seventy pounds; but the Meroo lump is, in size, unprecedented. Its value was estimated at 4,000*l*. It was found by a native in the service of W. Kerr, Esq., who informed his master of it. It was broken up, the gold being encased in quartz. The largest of the blocks in which it was contained weighed 75 lbs., and yielded 60 lbs. of pure gold. Before being broken up, the block presented an appearance like a honey-comb, and consisted of particles of a crystalline form. It was found amongst a number of quartz blocks, forming an isolated heap, which was lying about 100 yards from a quartz vein, stretching up the ridge from the creek.

On the 15th of August, 5,800 oz. of gold had passed through the customs for shipment. Much, however, was exported with out having passed through the customs; merchants' accounts estimated the quantity at 8,329 oz., value 28,000*l*.

A regular escort was now established; the gold was conveyed to the capital under charge of the Government, the charge being one per cent. on the value. On the 8th of July, the number of licenses on the Turon was 600.

In the mean time, Mr. Stutchbury had been engaged on an extensive geological and mineralogical survey, the result of which was that he found gold *almost wherever he tried for it.* He traversed the Macquarie, from Walgumballa to the Turon, and found gold at *every* place he tried. At the Turon, a compact porphyry is succeeded by hard clay slate. Leaving the Turon, he crossed the mountain range, and came upon the Macquarie at Nelly's Corner. Here he found scale gold, which ceased higher up the river. At Stony Creek gold was also found. In the course of his survey he made the remark: "in no instance have I found gold in what I should consider as its natural matrix." The bars and *detritus* of the rivers and creeks are the spots in which it is usually found, and in every case it presents the appearance of being waterworn. When the matrix from which all these particles were washed is discovered, gold in our day, as in the days of Solomon, will be "nothing thought of." Mr. Stutchbury found also platinum; and quicksilver has, in more than one place, been reported to exist.

Gold is not only found in the streams, but also in the cliffs, or "slopes," as they are termed. These are crowded with diggers, and yield it abundantly. Experience has shewn, that wherever these slopes are opposed to bluffs of mica slate, intersected with quartz veins, it may be safely declared that gold exists there in abundance. This is the formation at Summerhill Creek.

The geological character of the Turon is somewhat different. The hills are formed of mica slate, without much mica, and no quartz veins whatever; "but the production of gold," says Mr. Hardy, the Commissioner of Crown Lands, "appears to be *as regular as wheat in a sown field.* It does not matter where you look—in the bed of the stream, or in the impending slopes—the result is the same." The production of gold, says the same authority, down the Macquarie, and in other streams within forty miles of Bathurst, may be termed illimitable.

In the Summerhill Creek, with its numerous quartz veins, its broken bed, and its narrow tortuous course, the gold is massive in its character, the dust of that quarter being coarse in comparison with that from the Turon. In the latter stream, with unbroken bed and banks, and the absence of quartz veins, the gold is exceedingly fine. It is hence evident that the Turon gold is chiefly the product of the upper unexplored and broken sources of the Turon, where will be found the narrower, steeper country, and multitudinous quartz veins; and there, too, will be found the coarse gold detached from its neighbouring matrix, too heavy to be carried down with the lighter particles by every flood towards the Macquarie.

On land of Mr. Wentworth, where the Gosling Creek forms a junction with the Frederick's Valley Creek, at the height of fifty or sixty feet above the valley, gold has been picked up from the surface of the ground, principally in fragmentary quartz and ochreous loam. This gold is evidently not far from the rock where it originated, as it exhibits no character of being waterworn. It is hence concluded, that quarrying into the rock would, in all probability, exhibit the gold in veins. The fact of its being found on the summit of the hills is important. Further examination in similar situations may prove its occurrence in regular lodes like baser metals. Emigrants before going out should make themselves acquainted with such geological facts, as they may afterwards be turned to good account. The appearances here spoken of are at Orange, near Frederick's River.

What we have above stated with reference to the Turon has since been amply verified, viz., that the large gold, and the greater quantity of it, would be found higher up the river Only a mile and a half above the spot where the extrem comminuted gold was found, it occurred in great quantities, in pieces of from a pennyweight to an ounce. In one day three men, on making the search, found ten pounds weight of gold in nuggets not exceeding an ounce in weight. Intending emigrants will do well to remember these facts, that whenever extremely divided gold is found, a search in the direction of the upper stream will not fail to lead them to the spot from which it has been washed, and where the heavier masses still remain.

The way in which licenses are issued is as follows:—Nine feet of stream frontage are allotted to every two persons; fifteen feet to three persons; eighteen feet to four; twenty-one feet to five; twenty-four to six; and so on. Where there is no frontage to a stream, twenty square feet is to be allotted to three, and the allotments are marked consecutively, when practicable. This, however, varies at the discretion of the commissioners, according to the nature of the ground and its productiveness. The commissioners are usually liberal in their allotments, and the diggers generally are satisfied. The price of a license, as we have before stated, is thirty shillings per month. This was at first considered by the diggers too high, but from the productiveness of the mines is now cheerfully acquiesced in.

The following are the New South Wales localities, the list being pretty complete up to the present time, though new discoveries are daily taking place; these will be noticed in succeeding èditions of this volume as they occur:—

GOLD FIELDS OF NEW SOUTH WALES.

As has already been stated, gold was first found in the county of Bathurst. It comprises two extensive valleys, viz. that of the Macquarie, a large inland stream possessing a character peculiar to the interior waters of Australia, and that of the Lachlan, a tributary of the Murrumbidgee. A range of mountains, called the Canobolas, divides these valleys, and forms with them an auriferous district, which has yielded gold in large quantities, but which has been very inefficiently explored, in consequence of the miners being attracted to the more lucrative gold fields of Victoria. The diggings in this vicinity, and in the adjoining counties, are chiefly as follows:—

Lewis Ponds.—A chain of water-holes in the county of Bathurst, forming in the rainy season a river which empties itself into the river Macquarie. The locality is generally known by the name of Lewis Ponds Creek—"creek" being the term usually given to this description of water-holes in the interior of Australia—though they have not, as we understand the term in England, any connection with the sea. Gold is found in Lewis Ponds, all the way to the junction with the Frederic's Valley and Summerhill Creeks.

Summerhill Creek.—Contiguous to the preceding locality, and similar in its character. This was the neighbourhood first pointed out by Mr. Hargraves to the Government, as abounding in gold. Summerhill, from which the locality takes its name, is 144 miles from Sydney, and 30 from Bathurst. Gold also abounds on a creek which joins that of Summerhill below Belarida.

Frederic's Valley Creek.—Is situated 153 miles from Sydney, and eight miles from the preceding locality. This was one of the original gold fields, and here Mr. Hargraves found a lump of gold, weighing 7 lbs., imbedded in the ferruginous rock, which abounds in the neighbourhood. Gold is found along the whole line of this creek; also on the range between Frederic's Valley and Gosling's Creek, on the estates of Mr. Wentworth, who has a considerable property here, consisting of 6,000 acres, all believed to be auriferous. Contrary to the gold fields generally, this spot is highly fertile. The soil, where not black alluvial, consists of red clay intermixed with quartz; basaltic rock is also abundant. The people here have been for some time literally paving their roads with gold, as this rock been broken up in large quantities for "metal" to mend the roads.

Emu Swamp.—This locality is also near Lewis Ponds, and has yielded a considerable quantity of the precious metal. It had its name from having formerly abounded with the emu, or Australian ostrich, which has, from the encroachments of the settlers, disappeared almost entirely from the district.

The Turon.—Gold abounds on this river all along the various bars from Choenarang Creek to its junction with the Macquarie. This is amongst the principal gold fields yet discovered in New South Wales, and is believed, when efficiently explored, to be inexhaustible. Several companies have been formed in England for the purpose of effecting a thorough exploration, and bringing the appliances of science to bear upon the results. The drawback to the district, is, that it is subject to heavy floods, which, for a considerable portion of the year, render mining impracticable, except upon the banks, or slopes, as they are termed. The Turon has its rise near Cullen Cullen, in the county of Roxburgh, which it divides from Wellington, and afterwards flows into the Macquarie. The diggings most noted are those of Sofala, Little and Big Oakey Creeks, Stockyard and Sawyer's Creeks, Cunningham Creek, and Deep Creek, together with some of minor importance.

Winburndale Creek is another tributary of the Macquarie, somewhat nearer to Bathurst than the Turon. Gold is here found in considerable quantities, with every prospect of permanence. It is chiefly imbedded in quartz. There is here a never-failing supply of water. The gold is found in the river at Gum Swamp, and in the Mullamurra Creek. On the banks it is sometimes found imbedded at a depth of more than twenty feet.

Tambaroura Creek is another tributary of the Macquarie, which it joins just before the junction of the Summerhill Creek with that river. Considerable quantities of gold are now being obtained from this locality. Beyond the junction of the Tambaroura Creek, with the Macquarie, is—

Pyramul Creek, which has of late become noted for its surface-workings, gold being found in a decomposed state at an inconsiderable depth. Beyond this the Macquarie has not been properly explored; but it is evident that gold will be found along its course, as it has been obtained at Dublin, in the Bligh district, at a considerable distance below the ascertained gold fields. Nearly parallel with the Summerhill Creek and the Macquarie, is—

Molong Creek, which rises in the Canobolas in the Wellington district, and flows into the Bell River, which borders the county of Wellington on the western side, and forms a junction with the Macquarie near Montefiores. There are indications of gold all along this stream, which has not yet been explored.

To the eastward of the Macquarie is the Cudgegong River, which rises on the Coricudgi mountain, and flows into the Macquarie at Wellington Valley. A tributary of the Cudgegong River is the Meroo Creek, on which are the famous diggings of—

Louisa Creek.—These diggings are thirty miles from Mudgee, a township on the Cudgegong river, one hundred and fifty miles from Sydney. The gold is here found in nuggets of all shapes and sizes, the auriferous soil not being more than nine inches beneath the surface. The country is an elevated flat table-land, somewhat marshy on the surface, and thickly sprinkled with quartz boulders and pebbles. Gold is also found in rocks of slaty formation, and in indurated clay. It was here that Dr. Kerr's large nugget of a hundredweight of gold was found, since when Brennan's nugget, which sold for 1,155*l.*, was found not twenty-five yards from the former. Since then several nuggets, varying in weight from one hundred ounces to upwards of three hundred ounces, have been picked up here.

The diggings before enumerated as being the principal ones, are all to the northward and westward of the town of Bathurst

There are others to the southward and eastward, of which the following are the most noted. The nearest of these are the Coombing Creek, which falls into the Belabula River, a tributary of the Lachlan. These diggings are near Carcoar, and are not of any great extent, as at present known; but from the number of watercourses and gullies which abound, there is no question but that one day a rich gold field will be discovered in the vicinity.

To the eastward of these are the O'Connell plains, situated in the counties of Westmoreland and Roxburgh, on the road from Sydney to Bathurst. Gold is here found on the Fish and Campbell's Rivers; the Fish River divides the counties of Cook and Westmoreland, and is crossed by the Bathurst road at the distance of ninety-six miles from Sydney. It flows into Campbell's River, forming the head of the Macquarie. This locality is upwards of 3,000 feet above the level of the sea, and presents indications of gold in numerous places which have yet to be explored.

The remaining gold fields of this district are those of the Abercrombie River, which is a tributary of the Lachlan, and rises on Mount Werong, flowing through the county of Georgiana. The principal encampment has been named Tarshish, as that on the Summerhill Creek was named Ophir. The chief gold localities are as follows:—

Tarshish.—Twenty miles south-east from Carcoar, seventeen from Mulgunnie, fifty from Bathurst, and seventy from Goulburn. Large quantities of gold have been found in this locality.

Tuena.—Sixty miles from Goulburn. The gold is here found in small particles in the river, but in great abundance. Nuggets indicative of the matrix are found on its banks. A single pint-pot-full of earth has yielded 6¼ oz., and a two-quart can 14 oz. Three days' work in another spot, gave 26, 24, and 20 oz. respectively. The gold is heavy and coarse.

Other diggings of less note are Isabella River, Mulgunnie Creek, Grove Creek, Copperhama Creek, &c. &c. Besides the above enumerated diggings in the Bathurst district, as it is termed, there are many others of less note.

Some diggings in the preceding districts have been comparatively deserted, the alluvial soil not yielding sufficient to satisfy the miners, though from the nature of the rocks in the vicinity, and from the tests which have been applied, it is probable that when science and mechanism shall combine in search of the precious metal, a rich reward is yet in store for those who search for it. Amongst these localities are the following:—

Gilmandyke.—One of the creeks on the Campbell River just alluded to. The land on this creek differs from that of most other gold localities, though the usual metamorphic and sedimentary rocks abound in the vicinity. Rich alluvial flats bound the creek on both sides, the ridges only rising to a slight elevation. Gold was found here in plenty on the surface, but on account of the liability of the spot to floods, and its generally marshy character, the miners abandoned it without searching for dry diggings on the banks and high land. The diggers here appear to have been a rude and enterprising set of men; it having since become apparent that a renewed effort, with means to keep down the water, would be well rewarded. Gilmandyke is twenty-five miles from Bathurst, and close to the Summerhill copper mine. The country abounds with minerals.

Bell's River, in the county of Wellington (see MOLONG).—The lower part of this river has been ascertained to contain gold, which has been worked at Newbriggan Creek, and at one or two other places, but has not yet been properly explored, though rich fields are supposed to abound.

Proceeding southward, we come to the Braidwood diggings and others forming a gold district of themselves, lying between Sydney and the Maneroo Plains. They are variously known as the Shoalhaven, the Braidwood, the Araluen, and other diggings. We will first glance at the localities themselves.

The *Shoalhaven* River rises in the Maneroo district at a hill called Corrumboroo, 100 miles from Sydney, and divides the counties of Murray, Argyle and Camden, from the county of St. Vincent. It flows into the sea at Cooloongatta, below Woolongong, passing through one of the Shoalhaven gullies. These gullies are ravines of great depth, from 500 to 1,200 feet, and are distant about twenty-six miles from Lake Bathurst.

Braidwood is a town of St. Vincent, and is the centre of one of the most important of these gold fields, to which it owes its inportance. It is 164 miles from Sydney. Here are situated some of the most productive gold fields of the colony. The diggings are on a creek called Araluen Creek, one of the tributaries of the Duah and the Broulee Mounyas. This spot is sixteen miles from Braidwood, and seventy-two from Goulburn in Argyle. The banks are black soil to the depth of six inches, with substrata of clay and sand, intermixed with particles of quartz. Mount Ebrington, six miles from Araluen, is also productive of gold, which is found in small nuggets.

With the above localities we may include Goulburn, 125 miles from Sydney, to which place a considerable quantity of gold finds its way in the course of transit to Sydney. The principal gold fields in this part of New South Wales are the following:—

Bungonia, on a creek of the same name, about 125 miles from Sydney. This creek is a tributary of the Shoalhaven, and the gold is found mixed with emery and sand. These diggings are sometimes called the Shoalhaven diggings, from their vicinity to that river.

Mongarlo, or Little River, twelve miles from Braidwood. The gold is here found in schistose rocks, and is of a nuggety character, one of 54 oz. having been found. The river or creek is a tributary of the Shoalhaven, and gold is found to its source in Budawang mountain, one of a range which divides the waters of the Shoalhaven from those which flow into the sea. This mountain is 170 miles from Sydney.

Major's Creek is a tributary of the Duah, near Araluen.

The auriferous soil here is decomposed granite, which is found at a depth of from ten to twenty feet, but the top alluvial soil also yields gold in abundance. At the first discovery of gold here a boy got half an ounce of gold from a small hole not a foot square, and considerable quantities are still obtained from this locality.

Lake George.—Gold is here found at the Big Creek. This lake, 2,000 feet above the level of the sea, is about sixteen miles long by seven broad. The western shore has a steep ridge of hills rising from the water's edge; but the country to the eastward and northward of the lake, consists of open plains. It is in the plains that the precious metal, washed down from the hills, is found.

Carraway Flat.—The diggings here were at one time considered of little value, but have since turned out to be rich, as have also those of Black Swamp in the vicinity. Carraway or Carawong Flat is near Lake George.

Mulwaree Ponds, in the same vicinity, from a branch of the river Wollondilly, receiving the waters of the Merijah rivulet, at the southern extremity of the county of Argyle, near Lake George. They flow northerly towards the town of Goulburn.

Wattle Forest Creek.—A tributary of Major's Creek, which has yielded a considerable quantity of gold.

Shelley's Flat, near Marulan, a mountain in the county of Argyle, 114 miles from Sydney.

Bell's Creek is another of the Araluen diggings, and has yielded a large amount of gold. Bell's Paddock, Bell's Point, and Bell's Gully, are names for different localities on this gold field.

There are many gold fields in this district, which may be thus briefly enumerated. *Meringo Range*, bordering a lagoon of the same name, about 150 miles from Sydney. *Pigeon-house Creek*, at the base of the Pigeon-house Mountain. This river flows into the Clyde, which rises in the above-named mountain, and disembogues into the Macleay River at Bateman's Bay. *Burrill Creek*, about three miles to the southward of Ulladulla, 139 miles from Sydney. *Arnprior*, in the county of Murray, 152 miles from Sydney. *Boro Creek*, 145 miles from Sydney. *Dividing range of Argyle*, a mountain chain extending from Burra Burra to Lake George, including the Breadalbane Plains. The greater portion of this district forms an immense gold field, many parts of which are being worked to advantage.

Many of the Moruya diggings we have classed with those on the Shoalhaven, the whole country between these two rivers being productive of gold. The Moruya is 190 miles from Sydney, and 20 from Bateman's Bay. It divides the county of St. Vincent from the Maneroo district. Other diggings on the Moruya, are *Kiora*, and at other places of less note.

The Maneroo Plains, still further to the southward, have been fully noticed in a former portion of this work, so that there is no occasion to refer to them in this place. The diggings which have been discovered in this district are chiefly on the Snowy River, which rises in the Australian Alps, a range of mountains which divides the district of Gipps' Land from that of Murray and Western Port. Gold has been discovered in many of the branches of these. Amongst those feeders of the Snowy River which belong to the Maneroo are the following:—*Ural Creek*. *Stony Creek*. *Nimitabel*, on the east side of the coast range. *Mowamba River*. *Maclachlan River*. *Jindehem*. *Jacob's River*, on the west side of the table land. *Ironpot Creek*. *Bombalo Creek*. *Calkin*, on the Mahratta Creek. *Berrima*, on the west side of the district, amongst the Australian Alps. *Bendee*, about sixty miles from Twofold Bay, with many others.

The *Delegat*, a tributary of the Snowy River, contains several gold fields, some of which are enumerated above. Others are *Slaughter-house Creek*, *Quedong*, &c. The *Moambo*, *Bendoc* and *Woolwye* rivers also contain gold.

We come now to the "border diggings." These are more usually spoken of as belonging to Victoria, on account of their comparative proximity to Melbourne, but they may be regarded in their extent, as belonging equally to New South Wales, and we shall therefore devote a portion of our space in this part of the volume to their description, giving a later account in our chapter on the gold localities of Victoria.

The central town of the border gold district is Albury, on the river Murray, 286 miles from Sydney. The diggings were first discovered last year, by Mr. Heavers, and are situated on the Murray, the Mitta Mitta, and the Ovens, the latter, according to present appearances, the most important. The Mitta Mitta is a branch of the Murray, flowing into that river near Albury. The Ovens is a tributary of the same stream, flowing from the snowy mountains.

The Ovens diggings are in a group of granitic hills in the district of the same name, about twenty miles from Albury, and about 200 from Melbourne. The gold is found deposited in a drift of rounded or decomposed quartz, lying in the intersection of the granite hills, and immediately upon the granite.

The bed claims are considered to contain the largest quantity of gold, but from the prevalence of water, it will be difficult to work them except by means of co-operative labour and machinery. Hence companies have been formed to a considerable extent, but even these are frequently compelled to succumb to the influx of water, which the machinery at their command is insufficient to keep down.

The gold of this district appears to be scattered over a large extent, some portions being highly productive, and others non-productive. Some parties have been clearing from 300 to 700 ounces of gold per month, whilst many have not been earning their daily bread. This is wrongly termed luck, but is, in fact, the advantage of knowledge and experience against the absence of those qualities. Intending emigrants may learn from this, the importance of getting all the geological knowledge in their power previous to starting, and on their voyage. A very little is sufficient, and that little is in the power of every emigrant. Even with proper attention to the geological sketches in this volume, he will have imbibed no small portion of the knowledge requisite for his future pursuits.

The more settled diggings in the Ovens River district are at Spring Creek, and the Yacka Danda Creek. Other valuable localities are on the Buffalo, about twelve miles from Spring Creek, the gold here being larger and rounder than elsewhere, and being scattered over a large extent of ground. Some 6,000 people are finding profitable employment here, though the majority of the miners are at a spot called Reedy Creek, of which the most fabulous reports are prevalent.

Spring Creek flows through some high ranges, which till a short time since had no distinctive geographical name, when Lieut.-Governor La Trobe, being on a visit to the locality, named them the Mayday ranges, and the diggings themselves the Mayday diggings.

The geological character of these diggings is granitic, the surface soil being in general a dark loam, and in some instances red gravel. The gold does not lie at any great depth, the average distance beneath the surface being eight or ten feet. In the dry diggings, the miners have to go deeper, viz., from twelve to fourteen feet, and in the upper diggings from fifteen to twenty feet. Hence tunnelling is universally practised, and the compact nature of the soil renders the process easy. The gold throughout these diggings is found immediately above the bed rock, in a bed of loosely decomposed granite. The gold is remarkably fine, and of a deep bright rich colour. The quantity of gold which has been procured since November last is computed at 200,000 ounces; the escort on the 3rd of November having conveyed the first weekly instalment of 2,500, which has since increased to the weekly amount of 15,000 ounces. So that if we compute the amount to the present time on this scale, the yield is probably little less than 450,000 ounces, of an English value of 1,600,000*l.*, from this district alone.

In the gullies of the Buffalo ranges of which we have spoken —these being situated a dozen miles to the south-west of the government station at the Mayday range—the gold is of a coarse formation, and is more largely intermingled with slate and quartz. It is sometimes found in thick substantial gravelly clay, and the grains are, in such cases, about the size of grains of wheat, and are of very fine quality.

The Yacka Danda Creek rises in the ranges of the same name, and flows into the little river, which discharges itself into the Hume, some distance above Albury. The diggings on this creek are situated near the road between Albury and Spring Creek, and are characterized by similar geological features to those of the Spring Creek.

A recent writer thus speaks of the future of this vast gold field:—While it is impossible not to regard with interest the very large drift of gold which has occurred through the Spring Creek as remarkable, we are scarcely justified in assuming it to be a phenomenon peculiar to this fall of water alone. The Mayday Ranges—the Buffalo Ranges—the whole series indeed of Australian mountains which predominate in this district—are intercepted by similar streams, which may fairly be conjectured to carry in their courses the detritus of the same or of similar deposits. But the main question still remains unsolved, and will remain unsolved, until it is settled by the chance industry of some obscure adventurer, or by some untutored native of the soil, when perception of worldly interest shall graft on his instinctive knowledge of the treasures the soil affords, the energy requisite to unfold the grand secret. The small drift gold, which seems to flow down the streams of these mountains in a regular and unbroken course, must have somewhere a fountain head. The very minute particles in which we discover the gold in the tributaries of the Ovens cannot have originally existed there. They must be the sifted driftings of some original deposit, some formation in which gold has, by igneous action, been thrown up or originally placed, and from which secretions have constantly taken place from the combined action of water current and the gravity of the metal itself.

The extent to which these scattered diggings extend may be probably over a very wide area.

Already spots are known from which gold is being sent, and which are situated ten or fifteen miles distant. To reach these spots without a guide familiar with the country, and without camping out at night, is nearly impossible; and I have therefore been compelled to leave most of them unexplored. Those which I have visited are difficult of access, at least under present circumstances. I have looked down on the tents of diggers from precipices which they could never have descended, and they doubtless found their way into the ravines in which they are at work through mountain gorges and passes which are as yet generally unknown.

But there has not as yet been any very extensive prospecting in this vast field, which, from the Ovens itself to the sources of its tributary creeks, twenty or thirty miles distant, seems richly impregnated with gold. Even while the notes from which these remarks are written are being made, it is within observation and knowledge that numerous parties who have been successful in the Spring Creek are preparing for a tour of inspection into the ranges. This is the course that will generally be adopted, as the present yield of the field here gives way; and even before my account of what is now called the "Ovens Diggings;" reaches its finality, we may expect to hear of the field having been extended in various degrees of richness to an indefinite extent.

We may now retrace our steps to the northward of Sydney, on to what are termed the northern diggings, of which the principal, as described by later writers, are the following.

Jellore Mountain.—A mountain near the source of the Nattai River, which flows into the Wollondilly at Burragorang. It lies to the north-west of Mittagong, in the county of Camden, seventy miles from Sydney. The mountain is of a conical form, and is visible from Sydney lighthouse. The gold is found about the base of the mountain, thus indicating a matrix higher up.

Nammoi, or Peel River.—In the Liverpool Plains district.

The chief locality for gold in this district is at Eneierguendi Hill. The Nammoi flows into the Darling at Pockataroo.

Maneroo.—This district abounds with gold; and some new diggings of a very promising character have been discovered in the vicinity of the Snowy River. There are indications that this will become one of the most valuable localities in the colony. The Maneroo Plains form one of the finest districts in New South Wales. They consist of a series of gentle undulations, the soil being in the highest degree fertile, very unlike the barren wastes of California. The level of the plains forms an elevated table land parallel with the coast, from which spring majestically the Snowy Mountains, the Australian Alps, and the great Warragong Chain; all, doubtless, pregnant with gold. The plains form a square of about 100 miles in extent, and, irrespective of their mineral wealth, form in point of climate, scenery, and fertility, one of the most desirable residences for man on the face of the earth.

Oakey Creek.—Is situated to the westward of Summerhill Creek. Large quantities of gold have been found at this place, and the miners are positive as to its permanence. It is found here high up the banks as well as in the bed of the creek. This geological feature, as well here as elsewhere, we shall afterwards have to consider.

Moruya.—These diggings are on the banks of a river of the same name, which divides the county of St. Vincent from the Maneroo district. They are situated 100 miles from Sydney, and twenty from Bateman's Bay.

It would be easy to extend the enumeration of particular points on the gold fields to an indefinite extent. Nothing would be gained by this. The preceding, and some spots before alluded to, are the principal discoveries hitherto made, and every mail brings intelligence of new ones.

Gold has also been found in New England, at Swamp Oak Creek, the Macdonald River, the Cockburn River, on the eastern side of the range, near Walcha, and in many other places. It is useless to particularise more than we have don as there is abundant evidence that the whole mountain country is one mass of wealth inexhaustible by any number of people that could be placed on the gold fields.

Gold has also been discovered on the Brisbane, in the direction of Wide Bay, in the Moreton Bay district. The spot is about fifty miles from Brisbane, and is a basin surrounded by high hills, with a plentiful stream of water running through the valley. The geological formation is mica and chlorite schist, intersected by dykes of quartz. It is in the detritus of the quartz that the gold has been found, and wherever this is, gold may be expected to be discovered. In the schistose formation the most valuable deposit is found on the surface of the rock, or rather in the hollows.

The northern diggings are chiefly in the vicinity of the Peel River, Hanging Rock, Bingara, &c., and when fully explored, it is surmised that they will be second to none in Australia. The Hanging Rock diggings especially have lately been yielding largely in proportion to the few hands employed. The last accounts bring numerous instances of parties realizing from fifty to twenty-five ounces of gold per week. The following account of the geology of this district will show its character. It is from the pen of the Rev. Mr. Clarke:—

"*Peel Gold Mines.*—I do not consider myself sufficiently acquainted yet with the gold field of the Peel to report fully upon it, but, so far as I have seen, the quartz veins are numerous, though of no great magnitude. They are not all auriferous, but those which are not appear to alternate with such as are. Invariably, so far as I have seen, they are associated with dykes of trap, generally a greenstone, and range east and west, or within a degree or two of those points.

"They are, therefore, transverse to the quartz veins of Maneroo, and probably occupy a similar relation to them as the transverse of the veins of Cornwall. They are evidently younger than the baked conglomerate, shale, and grit, which they transverse, and by fragments of which the hills which they through are strewn.

"Beds of the Goonoogoonoo rock, highly inclined, transverse Cann's Plains, crested by conglomerate; and between the plains and the Peel the veins of auriferous quartz lining trap rise at a high angle from the southward. It is on the south side that the gold is sprinkled most abundantly, and it seems, as it were, *electrotyped* in little hollows upon the surface. Black cubical auriferous pyrites occur next the gold rock in some places, and there is abundance of *epidote* in portions of the quartz.

"Mr. Rudder, the Australian Agricultural Company's commissioner, has very obligingly conducted me to various points on the Company's land, and shown me his collection of rocks from the district. I detect amongst them no true granite, no slate, no well-defined porphyry, but there are transmuted rock and trap in abundance, some manganese and micaceous iron ore, jasper, agates, &c.

"I cannot imagine such rocks as chiefly compose the country to be otherwise than auriferous. In a collection shown to me on the river, from a 'long tom,' I saw small rubies, corundum, magnetic iron ore, titaniferous iron ore, and that peculiar species so common in all gold diggings, which at first sight appears to resemble the ends of the mining tools.

"I doubt not, that if followed to the eastward the quartz veins will be discovered on the government side; but from what I have heard and seen, these gold washers are not a sufficiently prospecting people.

"*Hanging Rock.*—As noticed by me in other portions of the Coast Range, the declivity to the westward is comparatively gentle compared with what it is to the eastward. I need only refer to previous reports during my southern journey to point out the consistency, in this respect, of the features of the range forming the '*divortia aquarum.*' Everywhere precipitous to the sea-board, and to the interior swampy and gradually inclined, the aqueous forces which have been employed in distributing the gold from the cordillera have necessarily left it on the table lands or carried it towards the westward. Moreover, as the outburst of the peculiar igneous rocks in connection wit the existence of gold has taken place, in this part of the colony, by wedging out towards the north and west, the planes of contact between the transmuting and transmuted formations are cut off by the eastward or southward escarpments, and, consequently, the production of the gold has necessarily been greater on the opposite fall. These remarks afford an answer to the question which is frequently asked respecting the more general distribution of alluvial gold on the interior side of the continent.

" The more I see of the great backbone of this continent, the more I am impressed with the high probability of the extension of the gold fields far beyond the present limits of search.

" *Oakey Creek.*—Here, at the head of the Oakey Creek, one of the Peel waters, and of the Back River, flowing down the Gulf to the Barnard, I recognise the same narrow separation of a few paces in width, which I mentioned as distinguishing the head of the Mahratta Creek, falling to the Snowy River, and the heads of water falling to the coast of the county of Auckland.

" The elevation of the whole of the territory in immediate contact with the igneous rocks that form the culminating points for so many degrees of latitude, and the subsequent and consequent denudation, appear to have left unmistakeable evidences impressed upon the physical conformation of the surface, which may justifiably be adduced in support of the opinion which I have advocated above, as well as on other occasions. It is very unlikely that gold, associated so frequently with certain superficial as well as with structural conditions, should suddenly be dissociated from them in their prolongation to the north.

" I report also, on more direct knowledge, that, as regards the Peel and Hanging Rock fields, the opinion I have already expressed has been strengthened by my more recent examination of the district.

" There are a few persons at work on the head waters of Nundle Creek; and there are still some on the Cockburn

River. And although they may not be doing much, the general success of the workings on Hook-anvil Creek, and Oakey Creek, and on the Peel, and the fact that I have found gold in various spots superficially distributed, and in quartz veins not yet opened,* lead me to conclude, that for some time to come these diggings will maintain, if not a large, a moderate number of persons. I am further convinced that if the diggers were a more active and intelligent class of persons, more satisfaction would be expressed by many among them, who seem to me to be ready to flock to any spot proved or asserted to be valuable, though they will not for themselves search the ranges and ravines for the indications which undoubtedly exist. The present supply of gold is certainly considerable for the number of persons engaged in supplying it. The system of operation is, however, quite unequal, in my humble judgment, to the capability of the country.

"It will easily occur to a reflecting person that, if gold has been almost universally distributed over the surface of our declivities, there must have been a sufficient cause of dispersion. I have already stated my belief that the gold was in some cases collected, from the rocks that held it, into the hollows in which it is now found in decomposed materials, whilst the localities alluded to were under the ocean. Admitting this, we have still to account for its dispersion along channels now occupied by running waters of feeble power since the elevation of the present dry land above the sea. The data I have collected for the illustration of facts connected with the superficial condition of this continent, at a distant geological epoch, must remain in the manuscript of my larger report for some time longer.

"I will confine myself to the following determined facts which tend to induce a safe conclusion that the 'cordillera' of New Holland must have once been at a higher point above the present sea level than it is now. Some denudation has, no doubt, taken place from the ancient summits; but that at least 20,000 or 22,000 solid feet of matter once existing above the present surface should have been denuded seems to me to be so preposterous a conclusion from mere guesses, that I cannot admit it. If then the Australian 'cordillera' was ever of a similar height to that of the Himalaya chain, it was not reduced so much by denudation of 20,000 or 22,000 feet of formations of which we have no traces left, but by a downward movement of the sea bottom during the oscillations which have occurred in the Pacific and Indian Oceans.

---

* Respecting these veins I must observe, that they are all of small calibre. The widest has a breadth of less than twelve inches; but narrow veins often produce considerable supplies of gold, as well as other metals. In the Limousin tin veins half an inch thick are worked. (Ansted 11, 248.)

"Fortunately, this probability is fortified by facts and geological inferences from observed phenomena. Not only, according to the evidence produced by Darkin, Jukes, and Dana, is it determined, that through many degrees of latitude within and northward of the tropic the coast of Australia, and, consequently, the 'cordillera,' which there meets the coast, must have sunk, but on equal testimony it may be proved, that the islands of the Indian Archipelago, such as Java, Sumatra, &c., must have risen, for the living coral deposits which in the former case attest the depression, are balanced by the dead coral deposits which are now found high above the sea on the flanks of the volcanic islands mentioned, attesting the elevation of land since the present era commenced.

"My own collections and personal explorations also bear out my inference, that even the vicinity of Sydney, as well as various points along the coast from this latitude to that of Bass' Strait, testify to changes of level, by vertical oscillations above as well as below the present horizon; and one of the results of my examination of the coast near the mouth of the Hunter, in the month of October last, on my way hither, was to confirm my previously published opinion of the subsidence of a large tract of the eastern side of the Newcastle coal basin, and its consequent destruction by the sea, by a discovery that the de- sits of alluvial matter on the very summit of the cliffs about castle must have originated when a far larger area than that now existing above the sea was subjected to terrestrial and atmospheric influences.

"The Surveyor-General, Sir T. L. Mitchell, has also produced evidence to show similar changes in other parts of the coast of Australia.

"The general existence of such facts is also proved by the accumulations of tertiary and modern products on the southern coast and in the interior. That there have been more that one oscillation of level is capable of demonstration. That during those oscillations the whole continent may at some time have been higher is, therefore, not a mere guess, but a deduction limited by such facts as are capable of being testified.

"I have a collection of tertiary shells from Gipps' Land (made by the kind diligence of Mr. Tyers), which bear the same value in the evidence for oscillation as do the tertiary deposits of the Murray, produced by Captain Sturt, and three successive risings and depressions of the land at the entrance of Port Phillip, proved by the late Dr. Hobson.

"If, then, we place side by side these accumulated facts, and consider the effect of a once higher position above the ocean of the Australian 'cordillera,' and at the same time (established by deposits of the same kind, containing corals and shells of living species) a lower position of the islands of the Indian Archipelago, the natural effect of the present atmospherical phenomena would be a decreased moisture in the islands to the north-west, and an enormous increase in the humidity of the western flank of the Australian 'cordillera,' and, consequently, a condition highly favourable to the dispersion of gold along the western slopes of the mountains, and in the flats and hollows below.

"The very damp strata of air flowing from the equatorial band, that now discharge torrents of rain upon the summits of the Indian Islands, would then find no nearer means of deposit than the 'cordillera' itself; and hence, that which is, at present, a dry and uninhabitable waste of sand and boulders, as described by Captain Sturt, might have been occupied enormous torrents, or extensive lakes, of the former existence of which the surface of the desert bears undoubted signs.

"Nor is this conjectural. On King's Creek, and various others, along the 'cordillera,' to the northward, and fully 100 feet below the surface of Liverpool Plains, there are accumulations of bones of gigantic animals, the structure of which proves them to have been adapted not for a dry, but for a moist climate, and for a country of morasses and swamps. These animals were contemporaneous with fresh-water molluscs of species that still inhabit the very creeks in which the bones are found.

"Such facts as these indubitably prove, that even in the modern epoch, Australia was infinitely more moist than now, and that a change has gone on from that time to this which must, I think, have resulted from some such cause as I have assigned to it.

"Nor are the localities which I have mentioned, the only ones in which these animal testimonies to a greater degree of moisture, and, as I argue, a higher position for the horizon of the 'cordillera,' are found.

"I mention here, for the first time, that bones of the diprodon, and allied animals, are in my possession from the alluvia of the basin of the Hunter River, and it is already known that the caves of Wellington and Molong, and the alluvia of the Turon, witness to the same important facts.

"Can we doubt that all these evidences of past, though comparatively recent, changes bear with enormous force upon the questions suggested by the existence and conditions of our gold fields?

"No man can believe that our present conditions of climate consort with such deposits as those which fill up receptacles 100 feet deep, with detritus of shales, sandstones, quartz rock, bones of extinct animals, trappean alluvian—and may I not venture to add (since I believe it), some gold?

"If the above remarks be, as I think they will be, considered satisfactory as to the probable increasing richness of our 'cordillera,' and its flanking alluvia, they are equally so as respects some of the insulated summits of now low ranges of quartziferous slate, granite, conglomerates, and grits, and the expanse of detritus and alluvia from which these denuded, and depressed, and transmuted islands of the desert rise, as from an ocean of unknown depth.

"It has been held of old that gold pertains not to islands. Relying on the faith of geological data, I ventured to predict that New Zealand is auriferous, as it has been found, though more than a thousand miles away from the continent to which it properly belongs. And on similar data, as respects the low ranges of the far interior, I will venture to anticipate that in those culminating points of what are truly western parallels of our 'cordillera,' and in the ocean of alluvia around, when the white man can traverse the desert by the aid of iron, gold will be discovered.

"The 'Hanging-Rock Diggings' prove that some of our gold is of more recent date than the base of our carboniferous system, and fragmentary portions of the middle beds of that system are known to contain gold (in pebbles torn from auriferous rocks during the formation of the sedimentary deposits); but though the latter case is an exception, the former exhibits the rule in somewhat of contradiction to other Australian examples, teaching us that we have much to learn, before the whole mystery of our auriferous wealth shall have been developed.

"Not relying in any great degree upon such indications as have been discovered by some in the middle and upper series of our carboniferous rocks, I cannot refuse my assent to the possibility of finding gold in even the more recent formations of the insulated interior ridges, since what has occurred on the Hanging Rock, and on the Peel, may have occurred there; and I happen to have, within the last four months, had casts of plants in sandstone, similar to much which contains the same species in our maritime coal-beds, sent to me from ranges that lie between the Darling and the Murray, and not many miles from their junction."

The following remarks from the pen of an able writer in the colony will conclude our account of New South Wales:—

"We have passed safely through the crisis of the gold discovery. All the disturbance of society which that discovery occasioned has been gradually smoothed down; the relations between the various classes of colonists, which were suddenly and dangerously reversed, have recovered, to a very great extent, their normal state, but with great and lasting improvement of every man's individual status and prospects. The production of tons upon tons of gold, has enriched the whole community; and, thanks to the soundness of our condition in a commercial point of view, at the outburst of the gold fever, no noticeable damage was caused by an event which, under other circumstances, might have been attended with most distressful consequences. The gold found an immediate market; it did not remain here to canker and corrupt, but instantly and naturally flowed into a healthy and legitimate channel.

"It is therefore not without satisfaction that we record the peaceable condition we continue to maintain, and the generally sound and healthy state of the body politic. Our golden resources are likely, during the present year (1853), to be very largely developed. Recent accounts, on which implicit reliance may be placed, show that we have as yet but skimmed the surface of our auriferous districts, and every day new gold fields are being discovered. We have assurance that the whole of the southern districts teem with gold, as far as the frontiers of Victoria. This is no more than was predicted by Mr. Hargraves, who always expressed his conviction that the chain of gold-bearing rocks between the mountains of the Turon and Mount Alexander, would be traced without any interruption, and would prove a highly profitable gold field, whenever tried. The recent accession to our population will probably result in a large increase of our auriferous resources; and New South Wales will contribute her full share of golden treasure to the general commerce of the world."

Having pointed out to the intending emigrant the localities and productiveness of the New South Wales gold fields, we will now tell him

HOW TO LOOK FOR GOLD.

The first step toward this is to inform him under what conditions it is found in the principal gold countries of the Northern Hemisphere, to which the precious metals have, for the most part, been heretofore confined.

In the mines of Russian Siberia, gold is found mixed with sand and coarse gravel; the sand being evidently a disintegration of quartz. Pebbles of the latter substance, when broken up, yield it in considerable quantities, and in lumps, answering to the "nuggets" of the Australian mines. The hundredweight nugget, of which we have spoken, was an immense quartz boulder of this description, and this is the most common form of gold nuggets in Australia.

It is also found in granites, schists, and other igneous rocks. This is experienced in Australia. It is plentiful in Russia where greenstone, porphyry, and serpentine, are found in the older limestones. In this case, it is often associated with platinum and chromate of iron. The gold-bearing detritus is not so universal as in Australia, but is found at intervals.

In Brazil, gold is found in primitive granite, gneiss, hornblend, and mica, or, rather, in a disintegration of these rocks, as it exists generally in a stratum of these resting on the rock. As in Australia, it is frequently found on or at a few inches below the surface. Sometimes it exists in scales, or lumps, mingled with sand, both in the beds and on the banks of the stream, as well as in grains in alluvial loams. All these forms of gold exist in Australia, as is apparent from what we have before stated.

Sometimes gold is found in South America, mixed with the sulphurets of silver and iron, and again traversing rocks of mica slate. In Peru, ores of iron and oxides of copper contain gold in large quantities. In the bottoms of gullies, filled up by the accumulation of sand, nuggets of some size are often met with. This is precisely the case in Australia.

In Europe, gold is sometimes found in flakes, at some distance below a sand or gravel bank, and is often accompanied by titaniferous iron. It is seldom worth working, and is thus found on the banks of the Rhine. The Spanish mines, once highly productive, are mostly composed of ferruginous sand.

African gold is usually found in the sands of rivers, only, perhaps, because the people are not sufficiently intelligent to trace it to its matrix. Asian gold is generally found under the same conditions, probably from the same cause.

California is, perhaps, the gold district the geological features of which most closely resemble those of Australia. We have stated elsewhere that Mr. Hargreaves, the practical discoverer of Australian gold, was so struck with the resemblance of the Californian mountains to the outlines of the Australian Blue Mountains, that he returned to prosecute a search for the precious metal, and found it as he had anticipated.

In California, the interior mountains are composed of porphyry, limestone, &c.; these forming the outlying spurs, beyond which the rocks are volcanic, shewing lava in some places, and being covered by loam. On the Pacific, granite appears with schists and metamorphic limestones; these are traversed by veins of quartz, containing gold. Humboldt says that the prevailing geological types of equinoctial America, of which California is an extension, are porphyroid rocks associated with trachytes; and these, though in opposition to scientific theories, contain abundance of gold. Some of these porphyry formations rest immediately on primitive rocks, others on clay or talcose slate, with transition limestone. These porphyries are rich in gold. In the valley of the Sacramento, the streams present abundance of alluvial gold, the detritus of similar rocks.

As a general rule in searching for gold in Australia, the rocks should be either quartz or quartzose, though it is often found in clay-slate and other rocks previously mentioned. It is sometimes found in quartz of a rusty appearance, from the admixture of iron; the mass is then frequently cellular or honeycombed, as was the case, already recorded, of Dr. Kerr's hundredweight of gold. Granite rocks often contain auriferous veins of quartz, and when this is the case in Australia, gold may be expected from the granite itself. Gravel itself is a detritus of quartz, and hence the gold is frequently found amongst and *beneath* gravel. When schist rests on granite it is often auriferous, the gold being scattered in particles in the clayey rock.

In Australia, it is found, as a general rule, that when smaller particles of gold are found in a stream than higher up, the stream should be traced still higher, when the matrix will be arrived at, the river itself having brought down the detritus. The sources of gold are found to be twofold; the metal has either been diffused in certain rocks which have decomposed, or has been spread over the surface of the hills at some remote period, by the violent action of water. This is the origin of all alluvial gold beds.

Contrary to the usual law of metals, where gold is concerned, it is the upper and not the lower portions of veins which are prolific. This arises from the violent action of water on the surface,—and hence, in general, arises the argument that there must be mountains to produce much gold in valleys. It is generally found, moreover, that moderately high mountains produce the most gold. The most prolific gold fields of Russia are at the base of hills not more than 1,500 feet high, whilst those at the base of hills rising to 5,000 feet and upwards are not nearly so prolific in gold. Hence it is probable that the most fruitful discoveries in Australia have yet to come, and the gold fields of Port Phillip are a direct proof of the argument, as the hills where gold has chiefly been found are of moderate elevation.

There is a singular fact connected with the Australian gold chain of mountains. Exactly ninety degrees from the main Australian chain is the Ural chain, and exactly ninety degrees from the same chain is the Californian chain. The fourth quadrantal meridian falls in the Atlantic, between Brasil and Africa, both auriferous regions. In three of these meridians the earth has been fissured, and igneous rocks have pierced and transmuted elevated schistose beds. The identity of the Ural, Californian, and Australian gold ranges is shown by another curious fact. In Russia, the gold alluvium is found mingled with the bones of mammoths; in California, gigantic bones occur in the auriferous detritus; in Australia, are bone caverns, filled with relics of the gigantic diprotodon and nototherium, and these occur in the auriferous rocks and detritus. Hence the gold meridians are identical in character, and beyond doubt in extent, the Australian one proving the most rich in the precious metals—in other words, the richest gold country in the world.

Having spoken of the gold fields of the northern hemisphere, it will be interesting to notice other similar features to those in Australia. In the European and American mines, copper and lead abounds in the schist and quartzites. It does so in Australia, especially towards the southern extremity of the chain, where abundance of both metals has been discovered; but no one, of course, thinks it worth their while to work them, whilst gold is so abundant. Yet will Australia become generally one of the most prolific metallic regions of the globe.

A still more important inference to be drawn from the comparison of European and American gold fields is the following, which we will instance from the Russian gold chain only, though it equally applies to the American one. It is only a few years since that the only known locality of Russian gold was near Ekaterinburg. Gold now extends over more than 6° north and south of that locality. Hence, from the similarity in geological feature, and the parallelism above noted, there is no question but that Australian gold will be found over a similar and even greater extent. The Russian mines, with all their advantages of being scientifically explored and skilfully worked, produce only 3,000,000*l*. per annum. The Australian mines, unskilfully worked, and not a hundredth part explored, have produced the same amount within a few months. To produce that amount in the Ural, not only quartz and schists, but even limestones are pounded. In Australia quartz-crushing has not yet commenced; all the gold procured being the result of working in picking out by hand lumps from a penny to a hundredweight. When machinery is brought to bear upon the Australian mines, the result will be wonderful beyond all precedent.

This is no theory; but geological certainty. The axis and flanks of the Australian cordillera are of the same geological epoch, and have undergone similar transmuting influences with the axis and flanks of the Ural chain. In constituents—in phenomena—in elevation above the sea—they are precisely the same. The Australian chain stands as a wall between the sea and the desert, just as the Ural chain stands as a wall between what was sea long after Australia became dry land and the desert of Siberia, so that the analogy between the two is perfect.

Humboldt first remarked, that gold is constant in meridian-directed mountains. The Ural, the Californian, and the Australian, have verified the truth of the remark. There is another point connected with this remark of the highest importance. If we look at the globe we shall find, that in the longitude of about 149° or 150° east, extends the meridian chain of Australia, *paralleled by similar chains, having similar axes*, in South and in West Australia. And there gold will also be found, as surely as that we are now writing.

A brief notice of the distribution of gold generally will be of use to the intending emigrant.

The diluvial deposits are found in the beds of streams and in the valleys around, the latter having been at one time covered with the waters of the stream. Gold is also deposited to a limited height above these valleys—frequently to the summit of the higher lands in the neighbourhood, these having been at some remote period under water also, when the gold was deposited as in the streams. The metal, under these circumstances, is found in sand, gravel, on clay beneath the gravel, and amongst the debris of rocks, and is continuous as to its quality, and frequently as regards the given contents per cubic fathom. Diggings where the deposits are of this nature are the most productive, and reward the most unskilful miner; as no machinery beyond a cradle, or some equally simple contrivance, is requisite. The materials for carrying on the pursuit are easily procured—the returns are quick—and the whole establishment is readily removed as the gold becomes exhausted.

Much of the gold found in these diluvial deposits is wasted, from the rude manner in which it is sought for; the miner being unable to detect it except in lumps or scales which are palpable to his eye. In Australia, numbers of reputed exhausted diggings will be well worth going over again with more skilful appliances, and the labour will be comparatively easy, from the previous loosening and removal of the earth from its bed.

The gold has not been generated in the streams, valleys, and high lands, over which it is scattered;—but has been washed down from the primary or non-fossiliferous rocks, the most common of these gold-bearing rocks being quartz, granite, or porphyry, and sometimes slate, the gold soil of the lower lands being merely the *detritus* of the primary formations.

The intelligent miner will hence look for the seat or matrix from which the gold has been carried—not by itself, but imbedded in rocks which have subsequently been abraded and washed away by the violence of the floods, the gold itself, from its weight, remaining nearly on the same spot in which it finally parted from its rocky envelope. The veins and beds in which it is originally found, generally exist in mountains of secondary height, and these are the more likely to contain gold, the more they are parallel to the meridian. Under these circumstances it is found imbedded in the rocks, often in a state imperceptible to the eye, the nuggets which are found being no doubt the result of fusion of the primary rocks when the latter were in a state of ignition. Rock mining can only be carried on successfully by machinery of various kinds, as pumps, stamps, &c.; and this machinery, being of a costly nature, must be permanent; so that great judgment has to be exercised as to the productive qualities and extent of the gold-bearing rocks, as a large outlay must be made before any profit can arise. Even at the best, gold veins are of a temporary nature, as a few years' continuous labour exhausts the product, and it is now well known; that in the majority of veins, at very moderate depths, the gold gradually and regularly diminishes in quality, though in some cases it improves slightly in quality, yet at last the expense of producing the metal is greater than the yield. The history of old gold mines does not prove the veins to be entirely exhausted, but only that the gold exists in such small quantities, that a gradually-increasing loss arises upon each ounce of gold produced, from the increased expense of pursuing the vein deeper.

Gold mines are, however, found extensively in the primary formations, in which the metal is sometimes intimately mixed with the rock generally, or it may be in lodes or veins spreading about like the twigs of a tree, sometimes thick and sometimes scanty; so that the search for it is not only tedious, but highly expensive, from the great mass of rock which has to be reduced to powder in order to obtain a small quantity of gold. It is for this reason that the gold mines of the Merionethshire and Wicklow mountains are not considered worth working. Indeed, although gold veins are worked in many countries, it is only in California that the gold rocks have been found worth working on a large scale, and even in California the sums spent in the unsuccessful attempts at rock mining are very large, as some of the English companies formed for that purpose can testify.

The rock mines of Australia will no doubt turn out equally if not more valuable than those of California, but they will never equal stream mining in profit. The gold veins of Brazil, Mexico, Borneo, and other localities, were once as rich as the Californian and Australian ones, but they are, for the most part, now of little value compared with the stream mines of these recently-discovered gold fields. The gold veins of Africa have never yet been explored from the pestilential character of the climate, but from the great yield, for ages, of the African streams, there is no question but that rock veins of immense value exist, but neither the intelligence nor the energy of the African, undirected by European skill, will ever bring them to light.

It is, then, to the rivers, or to the action of water generally, that we have to look for the most profitable supply of gold. Instead of hard rock, soft sand has to be searched, and the search is often rewarded—in Australia beyond any other gold country—with bunches and lumps of the rich metal, varying in value from a sovereign to 4,000 sovereigns, while lumps of the value of a hundred sovereigns, or more, are common prizes.

Gold is again found overlying the diluvial deposits in recent earthy matter, and has been slowly and gradually brought into the valleys and streams by the action of rain torrents, &c., in the neighbourhood of auriferous beds;—and not always in the neighbourhood of these only, but gold-bearing rivers are frequently beyond the primary formations. Gold, under these circumstances, is the mere concentration of many ages, by the action of water on earthy and ferruginous soils, which for hundreds of miles may contain traces of gold throughout, but yielding so small a percentage per ton, that by no known process of extraction can it be rendered available. Some of the states of North America, Mexico, and Brazil, contain gold under those conditions; but hardly worth the working: the object being not so much to find where gold exists—for next to on it is the most abundantly distributed metal—but to find where it exists in quantities sufficient to repay the labour of gathering it.

The last condition under which gold may be expected to be found is the one before alluded to, viz., in previously-worked alluvial and diluvial deposits, in which, from imperfections in working or washing, a portion escapes, which, from its specific gravity, settles in the earthy contents of the workings and rivers; and as the earthy matter is annually washing away, while most of the gold remains, after a lapse of time, the working of such localities over again will be found to be profitable. But as new fields in Australia will be abundant for ages to come, we need not pursue this matter further.

Gold is always found in a metallic state, and hence its quantity is always liable to exaggeration, from the excited imaginations of the finders. In Australia this was at first considered to be the case—hence the apathy of English adventurers till it came pouring into the home market by *tons* of actual weight. It is sometimes found alloyed with other metals, but it may be doubted whether it is more than in mechanical combination with them, whether silver, platinum, palladium, or other allied metals. Gold and platinum, not being oxidable, are never found in chemical combinations like the other metals, which readily combine with natural acids of all kinds.

The great gold desideratum of our day is a solvent which shall loosen the metal from the rock without the tedious and expensive process of pounding, separating the gold from earthy matter with less loss than is at present the case. The various amalgamating apparatus are too tedious for poor ores, and unnecessary for rich ones. The well-known simple affinity of mercury for gold will secure the smallest particle; but unless water be abundant, and something like 200 grains can be obtained per ton of earth, it will not yield any profit worth notice.

It has generally been found that, at a distance from the mountains in which auriferous streams arise, there is a point in which the gold is nearly an impalpable dust; and that going up the stream the particles sensibly increase in size, till at length they assume the appearance of scales; higher up still, the metal increases in coarseness, till the gold is found in its natural roughness, as if fresh broken from the matrix, being more or less interwoven as it approaches its source. As it approaches this, pieces are found to which portions of the native rock are attached; so that by carefully marking these indications the shrewd observer is able to form a good guess of the vicinity of mines which will amply repay the acuteness of his observation.

The greater portion of the Australian mines appear to be more or less connected with the basin of the Murray. The extent of this basin is yet unknown, the eastern feeders being those with which we are best acquainted. In this direction the basin reaches 151° of east longitude, approaching the shores of New South Wales. To the north, a feeder has been found in 25° south latitude. On the south, the mouth of the river is in 35°, while some of its feeders in the Victoria province are as far south as beyond 37°. On the west, its mouth, and probably many main feeders, reach to 130° east longitude. The area of the basin is thus not less than 1,400 miles from north to south, and 400 from east to west, comprising between 500,000 and 600,000 square miles, or a district five times the area of the British islands, and four times the extent of California. In the whole of this district there is no doubt that gold will be found.

Our space will not allow us further to enter into geological considerations, and we will now give the reader a few mineralogical characteristics of gold, so that he may know it when he finds it, this not being so easy a matter as he may imagine. False alarms without end are of constant occurrence in all the Australian colonies, the discoveries turning out neither more nor less than pyrites of some kind.

Gold is yellow, nearly silver-white, and steel-gray; the yellow is the most common in Australia. Its lustre is shining
h is increased by a little rubbing, when it will not again
h, from its non-oxidable qualities. In colour and lustre

it may easily be mistaken for iron or copper pyrites. A cut with a knife, or a blow with the hammer, will at once rectify this mistake, as it is soft, whilst iron pyrites is harder than steel; and if struck it flattens, whilst copper pyrites is not malleable, but crumbles before the blow. Mica is, again, often mistaken for gold, but the weight of the latter will at once point out the mistake, as mica is light. The steel-gray gold may be mistaken for platinum, but as it is rarely found in this condition in Australia, the difference is unimportant, and can only be detected by experience or assaying. The softness and the weight are the best tests. It is softer than iron, copper, or silver, and harder than tin and lead. Hence it is scratched by the three former metals, but scratches the two latter.

When broken, the edges are uneven. It is sometimes found in a crystalline form, and when so, its value is much increased, as being a rare mineralogical specimen. Sometimes it occurs in thin leaves. Should all the above indications not prove satisfactory, the blowpipe, with which every emigrant should provide himself, is a sure test. Before this it fuses readily, and remains unaltered, whilst copper and iron pyrites have a sulphurous smell, and rapidly diminish.

A bottle of nitric acid is a sure test. If the mineral found be gold, it will not touch it; if a baser metal, with the exception of one or two not commonly found in Australia, a violent action takes place, and gaseous fumes arise. By this means spurious gold dust may be detected; if it be pure, no action whatever will take place, and the liquor will not be discoloured; if impure, violent action will take place, red vapour will arise, and the acid will be discoloured.

The weight of a lump of quartz, as estimated by poising it in the hand, is generally sufficient to determine whether it contain gold or not, quartz having a specific gravity of about 2½, whilst the specific gravity of gold is from 18 to 19. This accounts for gold being found in grains and nuggets—the water having had sufficient power to break up and wash away the lighter rock, but not the gold itself. Hence it may be inferr that when large lumps of gold are found, the matrix itself cannot be far off—from the impossibility of the current washing these to any great distance. On the other hand, if the gold be in dust or scales, it may be, and is frequently, distributed over a large space of ground.

In case of doubt, it is easy to estimate roughly the specific gravity of the supposed precious metal, by weighing it with a tolerably-accurate pair of scales. Suspend the specimen with a piece of thread *under* the pan of one scale, then weigh it *in air* —noting the result. Then let the metal dip in water, and weigh it again; it will now be found to weigh less. Next subtract the weight in water from the weight in air, and divide the original weight in air by the loss of weight in water, and the quotient will be the specific gravity; showing not only whether the specimen is gold or not, but sufficiently near for any practical purpose, what is the purity and consequent value of the gold.

A person emigrating may readily attain practical skill in this on the voyage. We give the following from a lecture by Dr. Playfair, the subject of the experiment being a sovereign. It must be remembered that the sovereign must be suspended *under* the scale, so that the pan does not touch the water.

Weight of the sovereign in air .... 123·25 grains.
Weight of the sovereign in water .... 116·35 „

Loss of weight .... 6·90 „

Divide the first number 123·25 by 6·90; the quotient 17·86 is the specific gravity of the gold. A sovereign is not pure gold, being alloyed with one-twelfth of copper. When pure gold is made the subject of experiment, the specific gravity is more; from eighteen to nineteen, according to the purity of the specimen.

There is, however, no reason why an emigrant should not become speedily a sufficient chemist to be able to conduct all the experiments necessary to satisfy him as to the identity and purity of his gold. We have before said that nitric acid will not touch gold; but the gold itself may contain some baser metal which it protects from the action of the acid. Mix a portion of muriatic acid with the nitric acid; heat this mixture, and it will be found to dissolve gold readily; chlorine, a solvent of gold, being formed. Should not nitric acid be obtainable, mix chloride of lime with water, and add muriatic acid; heat as before, and the gold will be dissolved. Should muriatic acid be wanting, dissolve common salt and saltpetre in water, and add sulphuric acid (oil of vitriol), and the same effect will be produced. Perform the experiment in a common earthenware cup, not a metal one, having first ground to a fine powder the substance you are experimenting on. When dissolved, add carbonate of soda to neutralize the excess of acid.

If to this solution you add a solution of common copperas (sulphate of iron), a brown precipitate will be formed if it be gold which you are testing. Heat this precipitate, and you have metallic gold. Again, add oxalic acid to another portion of your gold solution, and heat it—the gold will be thrown down in brown powder, or a yellow spongy mass. To another portion of the solution add salts of tin, and a purple or reddish brown precipitate will be the result. If none of these be obtainable, boil your gold solution with a common seidlitz powder, and the gold will be precipitated in the shape of a black powder.

With the above materials, which will only cost a few shillings, scales included, the emigrant will be as well equipped for testing chemically the properties of gold, as though he carried with him a whole laboratory, and he will be able to use his materials practically.

The unpractised miner is apt to take several substances for gold which have no alliance with that metal. The first of these is yellow mica: this may, however, be readily distinguished by its lightness. The next is iron pyrites. This is as easily distinguished. Stick the point of a penknife into a scale of gold, and it will penetrate it, but the pyrites would be found to hard for this. Place a little of the substance on a shovel, and put it on the fire. If it be pyrites, a strong smell of sulphur will be perceived, and the residuum after the sulphur is driven off will become red iron rust. Dissolve the mineral in muriatic acid, and add a few drops of nitric acid. Add to the solution a little hartshorn, and, if iron pyrites, iron rust is precipitated. With a solution of nut galls common ink is produced. With prussiate of potash, Prussian blue is formed. Any of these tests will decide between iron and gold.

Copper pyrites may be similarly detected. On being heated, the same smell of sulphur will be perceived, and the ash left will be reddish black. If dissolved in an acid, and the blade of a knife or other piece of polished iron be held in the solution, it will become coated with copper. Hartshorn will turn the solution blue; carbonate of soda will precipitate it in a green powder; and prussiate of potash will give a mahogany brown precipitate.

Gold is commonly found associated with silver and platinum. The first is easily detected. Hammer the specimen out as thin as possible, and immerse it in sulphuric acid; the silver will be dissolved, and the gold will be left pure. A clean penny piece put into the solution will precipitate the silver, the proportion of which may be thus easily found.

Platinum, in colour, is not unlike steel-gray gold, though this latter is rarely found in Australia. Except by the colour, it is more difficult of detection than silver, especially to the inexperienced. The same solvents will act upon this as upon gold, and, like the latter metal, it is insolvent in nitric or muriatic acid separately, but is dissolved in a mixture of both by the application of heat. When found pure, it is infusible by any heat which the miner could apply. It is heavier than gold, but inappreciably so, except by taking the actual specific gravity. Platinum is one of the precious metals, deriving its value chiefly from its infusibility, which renders it of great service in the arts.

As platinum has not been found mixed with the gold of New

South Wales, we need not regard it. Should a lump of quartz be suspected to contain gold, the fact may easily be established as follows. Pound the quartz finely—the finer the better. Boil this for a considerable time in an equal mixture of nitric and muriatic acid; filter the solution through linen or cotton. It will destroy these—but that is no matter; the experimenter must also be careful not to get any of the acid on his clothes, or it will destroy them. If he burn his fingers with the acid, he will not do so a second time. Now add carbonate of soda to the solution when cool, and this will precipitate all baser metals. Filter again, and add a solution of oxalic acid, till it ceases to effervesce. The gold will now be thrown down in the form of a black powder, which may be converted into the usual form by melting.

We will now notice a new process for separating the precious metal from black sand and quartz, which has been patented in America. When quartz is stamped, it is found by experience, that, from the softness of gold, a great portion of the fine laminated filaments are rubbed off, sometimes amounting to from one-fourth to two-fifths of the metal; and this filament can never be detached from the iron and sand by any plan of amalgamation. The patentee, who has taken his idea from Dr. Percy—who propounded much the same thing in a paper read before the London Chemical Society—uses neither more nor less than a fresh and liquid bleaching chloride of lime. The mode of its action will be readily understood from what we have before stated, and the ingenious miner can easily try the effect of this hypochlorous solvent for himself.

Thus much for the chemical treatment of gold, and in the mines of Australia chemistry is of little avail, except as being the means of satisfactorily testing the presence or the value of the precious metal. The gold of Australia is, for the most part, tangible, but vast quantities are, no doubt, thrown aside which are neither tangible nor even perceptible; and what we have already said is quite sufficient to give an intelligent emigrant the requisite chemical knowledge which will enable him to detect gold under any circumstances.

A few words on the metallurgic treatment of gold will render this part of our subject complete.

When Australian gold is alloyed, it is usually with silver, and an inappreciable portion of iron. Nearly four per cent. of silver has been detected, and about one-sixth per cent. of iron is not uncommon. It is not the province of the miner to separate either of these, and he will be much better engaged in getting the gold as it is, than in wasting his time upon experiment for the purpose of separation.

Neither is it at present worth his while to smelt the metal, but it may be so hereafter; as gold is better kept in the state of ingots than in dust or nuggets. The process is simple, and requires few materials. A portable furnace, a few black lead crucibles, and some carbonate of soda, borax, or other flux, constitute all the materials requisite, and are cheaply obtained and easily carried.

Australian gold is chiefly found associated with silica, in its forms of quartz, or common sand, or in clay, to which it has percolated through the sand. It is also found with oxide of iron, the magnetic oxide especially, and this has been found no bad test of the presence of gold. The more complicated conditions in which it is generally found in South America are of so rare occurrence in Australia, that they need not be noticed.

As gold readily melts, it may be thought that, by heating a piece of quartz beyond the melting point of gold, this metal will flow from the quartz. This is not so; the gold will be melted, it is true, but it will be in the matrix as before. The quartz is infusible, and in order to get at the gold, it is necessary to render it fusible. If to finely-powdered quartz we add several substances, this effect will be produced. Mix carbonate of soda with the finely-powdered quartz, and when it has arrived at a certain heat it is quartz no longer, but melted glass, through which the gold, if any, will sink to the bottom of the crucible.

Those who are conversant with iron furnaces will see the *rationale* of this process at once. Ironstone contains a large proportion of silica. No heat could alter this; but when the smelters mix with the ironstone a quantity of lime and clay, the mass melts, and the silica combines with the "flux" in the shape of an opaque glass, technically termed "slag." This floats on the top of the melted mass, and the iron, in a state of comparative purity, sinks to the bottom. Precisely the same means must be employed in melting gold, and the same results will take place.

But the quartz must be very finely powdered, or such a time would elapse before the combination of the quartz with the "flux" took place, that the process would be a very tedious one; whilst if the combination were not perfect, much gold would inevitably be lost.

But suppose the gold and quartz to be melted, the same difficulty presents itself as to how to get the gold from the quartz-glass which has been formed. We must have recourse to something which will take the whole of the gold from the glass, and which will readily give it back again in its pure state. This condition is answered by mixing with it a quantity of lead. This metal takes up all the gold, and may be readily separated from the quartz-glass. We should here remark that lime and oxide of iron, as well as some other substances, will convert the quartz into glass as well as carbonate of soda. Into the nature of these it is not necessary to enter, as we are only showing the principle of gold smelting: leaving the miner to apply it in practice. There are other vehicles which will serve to collect the gold as well as lead, but it is not necessary to notice them, this being the most efficacious. The lead may be applied either in a metallic or other form. If in another form, the most easily attainable combination of lead is litharge, which, previous to its application, should be mixed with a small quantity of powdered charcoal.

Having now got our mixture of gold and lead, the quartz-glass may be taken from the crucible and thrown away. The remaining step is to separate the gold from the lead. This is done by a process termed "cupellation." The miner would scarcely have time or experience to effect this process, but it will not be uninteresting to him to know its principle. When lead is heated to a high temperature, it rapidly absorbs the oxygen of the atmosphere, and, if heated to redness, the oxide thus formed, melts. But gold never oxidises, and cannot be volatilised at any heat procurable in an ordinary furnace. This distinction in the properties of the two metals causes their easy separation. Many substances readily absorb melted oxide of lead, amongst which is bone-ash, which substance, compressed into as solid a state as possible, will take up all the lead and leave the gold behind; the lead also, if in sufficient quantity, taking with it all baser metals, leaving the gold pure, or alloyed with silver only, and we have previously given the method of separating this. We may, however, mention, that when silver is to be "parted," as it is termed, from gold, the latter must be melted with three times its weight of silver, and then hammered or rolled out thin before it is exposed to the nitric acid, which dissolves the silver and leaves the pure gold behind.

In powdering the quartz, the process is rendered quicker by making the quartz red hot, and then plunging it in cold water. If the quartz, as is sometimes the case, contain magnetic iron, dry the powdered mass thoroughly, and apply a good magnet, which will take out all the iron, and thus save an immense trouble in getting the gold pure.

We would recommend those who can afford it to take out with them a small portable furnace. The cost is little, and it is at all times a highly-gratifying instrument; enabling the experimenter to form a correct estimate of any metallic substance which may come under his notice, with almost no skill on his part, and as little trouble. The best furnaces of this kind may be obtained of Messrs. Knight and Son, Foster-lane, Cheapside, who are also celebrated for the ingenuity and adaptation to the purpose intended, of numerous articles of this description.

We will give a sketch of one or two of Messrs. Knight's furnaces for the purposes of the miner.

The following (Fig. 1) is an excellent furnace for all purposes. It is constructed of stout sheet iron, and lined with fire bricks.

Fig. 1.

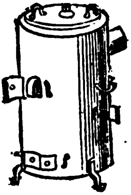


Fig. 2 is a portable assay furnace, the use of which is readily understood.

Fig. 2.

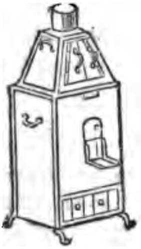
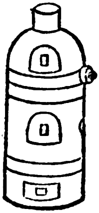


Fig. 3 is a black lead furnace; requiring, however, to be carefully used, being somewhat liable to crack from sudden change of temperature.

Fig. 3.



The two following are generally made of Stourbridge clay, and form a very useful and very cheap kind of furnace.

Fig. 4.

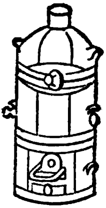
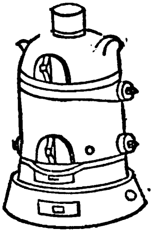
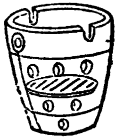


Fig. 5.



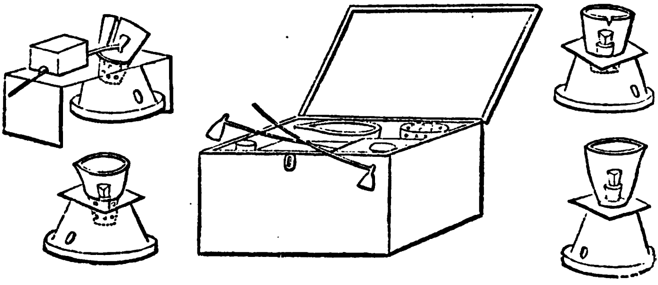
The annexed is Professor Faraday's form of a portable furnace; very simple, cheap, and easily regulated.

Fig. 6.



For experimental purposes, however, nothing can exceed the simple little contrivance of Mr. Charles Aikin, as displayed in the following cut. With a pair of double-blast bellows a heat may be produced sufficient to fuse 12 oz. of iron in five minutes.

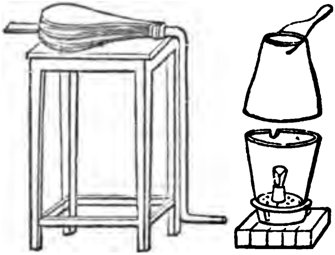
Fig. 7.



The foregoing cut shows the method of setting up the furnaces, the bottom part serving as the stand, through which the blast from the bellows is applied. The fuel to be used is gas coke broken rather smaller than a hazel hut, and freed from dust, and the small charcoal made from brushwood called small coal; with a due proportion of these, and urged by a pair of double bellows, an ounce of iron may be fused in five minutes in the smallest size.

The annexed are the bellows, as applied to another equally simple blast furnace of Mr. Aikin's construction. The advantage of the cut above given is, that the crucible forms part of the furnace. In the following cut it is placed within the furnace.

Fig. 8.



To obtain a sudden heat, and raise it rapidly to the greatest intensity, nothing can answer better than this furnace. It is composed of three parts. The lower one being the blast chamber, above this is the body of the furnace, perforated with holes to admit the blast, in the centre of which is the stand or support of the crucible. The third or upper is of a conical form, and serves to concentrate the heat, and causes it to reverberate on the bodies exposed to it, and it also protects the eyes of the operator from the glare of the fire.

Crucibles are so well known, that it is superfluous to give a description of them. The following are their general forms:—

The following forms a complete assaying apparatus:—Figs. 9, 10, 11 are cast iron ingot moulds; Fig. 12 is a cast iron skillet mould; Figs. 13, 14, 15 are cast iron casting cones; Fig. 16 is a hammer and anvil of shear steel; Fig. 17 is a cast iron mould used for the examination of galena; Fig 18 represents small shears, attached to a wood block, for cutting metal; Fig. 19 are small hand shears for the same purpose; Fig. 20 is a small size flatting roller, for rolling metal before exposing it to the action of an acid,—it must previously be hammered out as thin as possible.

Fig. 9.

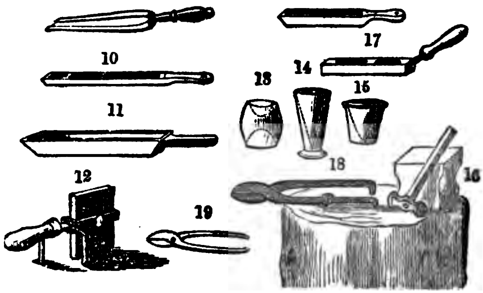
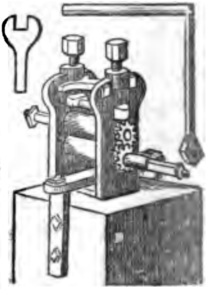


Fig. 20.



We will now give the intending emigrant an idea of

GOLD WASHING.

From our previous extracts it will be seen, that so abundant is gold in some parts of Australia, that it has repeatedly been obtained by a kick of the foot, and by boys and men with a tin dish. These modes are, however, too primitive to be profitable, except accidentally so. A tin dish is no bad test of the soil when "prospecting." Wash the soil, pouring carefully away the mud, leaving the heavier portion at the hinder angle of the pan. Then amalgamate the residue with a little quicksilver. If there is gold, the quicksilver on kneading it will become solid, and form a pasty mass. If the quicksilver remain liquid, and in globules, there is no gold—try again.

The Hungarian method of separating gold would answer well in Australia, where for the most part the gold is coarse and heavy. Get a long broad board, grooved longitudinally, and nail a thin strip of wood all round it, except at one end. Nail also a few strips of wood across the inside of the trough, to stop the gold, whilst the soil washes over. Give the trough a slight incline against a bank, and put your gold earth at the upper end. Pour water over this, and if there is gold it will all remain, from its weight, in the upper grooves, whilst the soil, being light, will be washed away. Where people work independently, as in Australia, and the gold is coarse, and water plentiful, this method, simple as it is, would be a very efficient one.

The following is just as simple and as efficacious. Carry with you a large wooden bowl, and put into this, or dig out of the bed of the stream with the bowl, a quantity of earth; stir this well in the water, and let it rest a minute or so; then throw away the water, and repeat the operation six or seven times. The gold, with care, will remain at the bottom. A bowl with five or six pounds' weight of stuff may be washed in a few minutes, and this method will be quite as productive as the "cradle," in which, by the testimony of all parties, half the gold is wasted. The sediment may be treated with quicksilver as before, if required, and the superfluous quicksilver may be wrung out through a piece of wash-leather, leaving the gold amalgam behind. We shall by-and-by show how to recover the quicksilver.

We are here supposing the absence of mechanical contrivances, many of which are more ingenious than useful, and that the Australian miner has chiefly to depend on his wits and his arms. To such, the following easy method, well known in South America, is worth more than the "cradle," and is attended with none of its inconveniences. Make a wooden gutter, the longer the better; very slightly incline it, so as to allow the water to run off; put your soil at the upper end; and if the gutter is long enough, all the soil may be washed away, leaving the gold at the top, or at most, not half way down. The running water thrown on will carry off all the light soil, and the stones may be picked out by hand. The gutter, to be efficacious, should be wide, and pretty deep, and if long enough, there would be no fear of losing any gold. Such a contrivance where a party is working, would, in point of producing, beat a dozen cradles.

A shallow tub or pail makes a first-rate washing machine. The manner of using it is this:—Place the tub in the water, an inch or two under the surface; then stir up the sediment,—the running stream will carry all the light soil away, and by-and-by you will have a respectable tubfull of gold; the stones may be picked out as before, and the remainder either separated by hand or with quicksilver.

The cradle, as used in California, is a rude affair, and acts upon some of the preceding principles. It is eight feet long, and stands on rockers, whence its name; at its head it has a coarse wire grating; the bottom is rounded with small cleets across. Four men are requisite to work it. One carries the soil and empties it on the sieve, another digs it from the gold bed, the third rocks the cradle, and the fourth supplies the water. The gutter we have spoken of is a better, though not so compact a contrivance. In the cradles, the sieve or grating keeps out the stones, the water clears away the earthy matter, and the gravel gradually finds its way out at the foot of the machine, leaving the gold and sand above the upper cleets This is taken out, dried in the sun, and the sand blown away.

The above description is from a despatch by Colonel Mason, given by Professor Ansted. It would be useless to give any further description of gold-washing contrivances. All are on one or more of the above principles, and he must have little ingenuity who could not both make and use them.

The tools necessary are just as simple, and consist of a crowbar, a pick, and a shovel, to which may be added a blacksmith's striking hammer, for breaking any rock supposed to contain gold. Other implements are unnecessary. The crowbar is indispensable. If quartz has to be crushed or ground in any quantities, mills are necessary; but these we shall not stay to describe, as they involve great expense, and are the work of the engineer. The above improvisatory methods are sufficient for all ordinary purposes.

Quicksilver is recovered from the amalgam by distillation, leaving the pure gold behind. Quicksilver machines may be purchased in London, and would be found highly serviceable where the emigrant can afford to go out well equipped for his work. But let him avoid encumbering himself with ingenious mining *impedimenta.* When on the gold fields he will soon be rich enough to indulge in scientific whims, and by that time, indeed even now, he may purchase them in the colony.

Much gold is now lost in Australia by the cradling method; but by the methods we have described, not a particle need be lost, and the digger may work independently of others; whereas, in cradling, he must be in partnership. Mr. Rudder, now in New South Wales, but formerly in California, gives the following variation on the cradle, but that of Colonel Mason, above described, is in our opinion preferable:—"The cradle," says Mr. Rudder, "should be four feet long, twenty inches wide, and have a slide of two feet under the hopper which leads to the grating—not mere wire netting, as the use of this is to keep stones out of the machine." This is a complication of affairs, and gives two feet less in the inclined plane than Col. Mason's which almost any one is carpenter enough to make for hi self. The inclination of the cradle should be half an inch to a foot.

Thus much for the theory of gold washing. We will now inform the intending emigrant how it is applied in the Australian gold fields. From what has been previously stated, he will readily comprehend the distinction between river diggings and dry diggings, the latter being on slopes where the water has ceased to operate, having left the gold at some remote period. At the dry diggings, being away from the stream, the gold is usually found near the surface. We will suppose a party "prospecting," or in search of new diggings. They provide themselves with crowbar, pickaxe, shovel, and prospecting pan, the latter being the high-sounding term for a large, round, flat-bottomed tin dish. As soon as they perceive the geological indications of gold, they fill their pan, and carry it to the stream, carefully washing the contents out, all but the gold, which sinks to the bottom. By filling the pan and washing it out two or three times, a few minutes will decide whether the soil contains gold, and whether it exists in paying quantity. If the spot promise to be remunerative, to work goes the cradle, which has been sufficiently described. This is vigorously rocked, water being poured on so as thoroughly to separate the mud, clay, and earth from the stones, which are picked out by hand, a glance being sufficient to determine whether they are pebbles or nuggets of gold. These, however, rarely occur in clayey soil. The cradle is again filled, and so on till the accumulation of mud at the ledges is sufficient for examination. It is then scraped out and examined, the larger gold being carefully picked out, and the remainder washed clean; though much gold is lost for want of quicksilver to take up the fine particles scarcely visible to the eye.

River diggings are, however, the most valuable, and it is in these that "nuggets" are chiefly found. Here more than a superficial examination is necessary, as gold will not in all probability be found at the surface, the holes and crevices in the original rock bed of the stream containing the greatest prizes. The soil, too, may be gravel, in which case, as we have previously explained when considering the geological character of the gold fields, the precious metal will have percolated through the upper stratum, and will have descended to the bed of the stream below, where it must be sought for. The shovel and the prospecting pan will soon decide this. If after removing the upper stratum, they reach a tenacious clay, a blue colour being considered the best, they will know that this has never been disintegrated by the current, but on the contrary, consolidated, and on the surface of the clay bed they may be pretty certain of finding gold in a comparatively thin layer. Should the prospecting party determine on working a spot presenting the true indications, they dig a trench, and by means of "back troughs" divert the course of the stream. The bed of the stream being thus laid dry, and all the large pebbles and gravel removed, the clay stratum is exposed and washed as before.

It will be well to watch for any old bed of the stream, now dry, but one over which the water has formerly flowed. Such dry beds are not unfrequently most productive. It is easy to tell where, in these old beds, an eddy has formerly existed, and there should the search be made. They will here dig till they reach the original bed of the stream, when the gravel will have to be removed as before, and the clay bed will be arrived at. The holes thus dug are sometimes of considerable depth, and if a good yield is obtained from the crevices of rock, or pockets, as they are termed, the bed is followed, and tunnelling commences under the adjoining banks. Sometimes hundreds of pounds worth are obtained in a single day, by parties who possess even the little mining experience which we have endeavoured to impart, whilst others less instructed will be digging away at a hole a few yards distant, without a chance of obtaining a single particle of gold.

We read in every paper from the colony of the "lottery of gold-digging," and "the disappointment of many of the diggers." This arises not from the want of gold, but the war of clear geological instruction. It is common enough to see a hard-working fellow, with the strength of a Hercules, excavating a hole large enough to bury the whole party, but with no more chance of getting gold than he would have if digging a well in his own garden. He wonders how it is that others, close to him, are digging it up from their claims by shovels full, whilst his own yields nothing. These are the men who return to their original localities, exclaiming against their ill luck, when in fact their failure is rather attributable to their ignorance or want of brains. If those persons who can afford it, would, previous to their embarkation, take a trip to Cornwall, and watch for a week or two the habits of the miners there, they may, with the instruction which has been imparted to them in this volume, depart for the gold fields of Australia, with such a degree of self-reliance as will not be disappointed.

We will now endeavour, in order to complete our instructions to the intending emigrant, to give him, unscientific though he may be, a popular notion of the art and mystery of

ASSAYING.

The weights used are technically termed carats, four grains going to the carat, and twenty-four carats to the pound troy. We say technically, for in reality this is not the case, assay weights being only comparative, the reality being that twelve grains troy represent twenty-four carats.

Now supposing, from the colour of the gold, the operator judged it to be 18 carats fine, he then adds to 24 carats, or 12 actual grains 18 grains troy of silver, which is double the quantity of fine gold; for 12 actual grains, representing 24 carats, 18 grains, will represent 36 carats, and the weight of the mass will be 30 actual grains, representing 60 carats. A little attention to this will obviate all difficulty.

These 30 actual grains are to be wrapped in as much lead as will fill an ordinary bullet-mould, the whole being placed in a vessel for about twenty-five minutes. The result will be

—but it must be watched, and experience only can determine how—that the lead will have melted, carrying with it any base metal, and leaving a button of pure gold and silver. This must now be taken out of the vessel, and hammered out as thin as possible, the thinner the better—it ought not to be thicker than writing-paper. It should be rolled; but there are no rolling-mills in the wilds of the Blue Mountains of Australia.

It must now be placed in dilute nitric acid, which will dissolve all the silver, and leave the pure gold untouched. A blowpipe will turn this into a button of fine gold.

A comparison must now be instituted between the gold as it now is—pure, and what it was before it went into the cupel. This is easy enough. The operator places in one scale the weight representing standard gold, or 22 carats, and in the other scale the gold he has been operating upon. If he find the gold operated on not so heavy as the standard, he puts in weights representing carats till the scale balances;—thus if the pure gold is not so heavy by the weight representing 4 carats, he deducts this from 22, and the gold is 18 carats fine, or 4 carats below standard. If it is heavier, as is generally the case with Australian gold, it is so much above the standard fineness according to the weight on the other side of the scale. A set of assay weights, a cupel, and a portable furnace, are necessary for this investigation, which we trust has been sufficiently explained to be rendered easy by a little practice.

To prevent the possibility of this process being misunderstood, we add the following explanation. The base metal, lead, carries with it the other base metals, leaving the gold and fine silver pure, but yet united. The nitric acid, which will not touch gold, dissolves the silver. But the gold must not be in excess, or it would protect the silver from the acid;—therefore the silver is purposely placed in excess, thus weakening the protective power of the gold. There is, however, a danger here. If too much silver be added, the gold falls into a black powder. If the above proportions be used, the gold, after the silver has been extracted by the acid, has a rich brown colour.

and is perfectly pure. By attending diligently to the above, which has been simply explained, every Australian miner, taking with him the small laboratory required, may become his own assayer. This is all the art and mystery of the process.

And now we will shew him the advantage which he may derive from our lesson, thus popularly given. The value of standard gold in London is 3*l.* 17*s.* 10½*d.* per ounce. Australian gold is generally above the standard, yet it sells in the colony at 3*l.* per ounce, giving a profit to the purchaser of 17*s.* 10½*d.* per ounce, which ought to belong, or nearly so, to the miners, as gold is valuable for remittance, without any premium on bills, as is generally given. We will give an instance of this want of knowledge of the value of Australian gold. A merchant in the city had a remittance in gold at the current colonial rate. He received the gold under protest, but, on carrying it to the assayer, he found that the gold remitted was worth 800*l.* more than he had been charged for it. The miner *in prospectu* may judge from this of the advantage of a little, and but a little, knowledge of the art of assaying.

Simple as the method of cupellation appears—and this is the method employed in the public assay offices of England—Professor Rose of Berlin has laid down one still simpler, which any one, however unskilled, can practise. It depends solely upon the proportions between the pure gold in a given mass, and the mass itself, without reference to any other matters. Melt any small quantity of gold dust with three times its weight of pure lead, obtained by burning sugar-of-lead in a crucible. The whole must be fused, and not a button of gold and silver left, as in the former process. Hammer out the mass as before, and treat it with nitric acid. All but the gold will then be dissolved. Wash, dry, and weigh this, and its comparison with the original mass gives the standard of that mass.

There is yet another method of assaying, which is known to and practised by every Jew dealer in old coins in London, viz., that of the touchstone, which is simply a piece of bloodstone.

Wash the gold, and free it from all impurity, then rub it on the touchstone. The colour of the portion rubbed off determines its purity, and a very little experience in this will enable the gold-hunter to determine pretty accurately the value of his produce.

We will conclude this interesting subject by an enumeration of the articles requisite to fit out a digger who can command capital to procure them, though the cost of the whole is by no means large. Those of smaller means can easily make such a selection as we have previously pointed out to be absolutely necessary.

Mortar and pestle for breaking quartz, miner's shovel, crowbar and pickaxe, large and small hammer, a few wedges, galvanized iron bucket, washing-bowl and sieve, and washing-cradle, of which Messrs. Knight manufacture one on the best Californian model.

Portable furnace, a few Cornish crucibles, bone ash cupels, crucible tongs, iron retort for distillation of mercury after amalgamation, assay scales and weights, a few blowpipes, portable balance for taking specific gravities, a touchstone, acid bottles, and a few tests and fluxes. A portable forge with the accompanying instruments would be a great acquisition to those who can afford it; one sufficient for all purposes may be procured at a cost of from *50s*. to *5l.*

With the above, or a portion, the miner pursuing his researches in remote spots, would be well armed, and with these, and the instructions we have previously given, few rocks or soils could present themselves to him, the metallic value of which he could not easily ascertain.

We will not carry the subject farther—enough has been said for all practical purposes; and we have yet to notice the colony of Victoria and its gold fields, still more extraordinary in their yield of the precious metal than even the colony of New South Wales.

CHAPTER IX.

VICTORIA.

Situation—Port Phillip—First settlers—Opposition of the Government—Counties—Harbours—Towns—Melbourne—Geelong—Soil and climate—Scenery—Population—Imports—Fertility of the colony—Educational statistics.

The colony of Victoria, recently separated from New South Wales, of which it formed a portion under the denomination of Port Phillip, is situated between Cape Howe and the Murray River, forming the most southerly portion of the Australian continent, notwithstanding the name of its neighbour colony—South Australia. It is bounded by a line drawn from Cape Howe, in a north-west direction, to one of the branches of the Murray, dividing it from the county of Auckland and the Maneroo district; on the north by the Murray to the South Australian frontier, at the 141st degree of east longitude; on the west by the South Australian frontier, and on the south by Bass's Straits, which separate it from Van Diemen's Land, the nearest port of which is Launceston. The coast line of the colony is about 600 miles, lying east and west; its breadth from north to south is about 250 miles; its superficial area is 80,000 square miles, or 51,200,000 acres. From the fertility of the soil, and the healthiness of the climate, Sir Thomas Mitchell, who may be said to be its practical, though not first, discoverer, named it Australia Felix. His words are no less memorable than highly descriptive of the country. "We traversed it in two directions with heavy carts, meeting with no other obstruction than the softness of the soil; and in returning over flowery plains and green hills, fanned by the breezes of early spring, I named this region Australia Felix, the better to distinguish it from the parched deserts of the interior country, where we had wandered so unprofitably and so long."

Port Phillip, like Port Jackson, as we have previously recorded, was, in the earlier period of the colony, passed over by mistake. In 1803, Colonel Collins was sent from England to form a station on the southern coast of New Holland. He entered Port Phillip, and abandoned it as an undesirable place in which to form a settlement, because he could not get a supply of fresh water; though he could not have taken much trouble in the search for it. His convict fleet remained some time in the bay, and several prisoners contrived to get away; these, with the exception of three, were destroyed by the natives. Two returned and gave themselves up; the third, a lad named Buckley, fell into the hands of the natives, but some of the "gins," or native women, having fallen in love with him, interceded for his life, which was spared, and he was incorporated with their tribe, becoming one of them, and bearing a part in their duties and wars. Thirty years afterwards, he was found by a Van Diemen's Land vessel, and taken across the straits, leaving his savage life reluctantly, and expressing a desire to return to his sable wife and family.

At the period of the discovery of Buckley, or the wild man of the woods, as he was termed, a considerable sealing trade was carried on from Van Diemen's Land, in Bass's Straits, and especially upon the shores of what is now the colony of Victoria. These reported to the colonists the beauty of the country, and its pastoral capabilities. It so happened at that time, about 1835, that orders had been received from home to raise the price of land; the colonists, not thinking themselve able to pay this, and there being at that time no squatting system, they turned their eyes to the country on the opposite side of the strait, where there was neither a pound an acre system, nor in fact any government at all, the country only being known as aforesaid. A Mr. Batman, in company with some Sydney blacks, went over in May of the above-named year, for the purpose of buying land from the natives, and succeeded in getting from them a large tract of country. He then recommended to the Van Diemen's Land Government to annex the newly discovered country to the old colony, but this was declined.

Shortly afterwards a colonist named Gellibrand went over, and on his return formed a company for the purpose of sheep-farming, large flocks being sent across the straits. The services of Buckley were put in requisition, and by his influence large additional tracts of land were purchased from the natives. The fame of the country had now got noised abroad, and numbers of persons came with their flocks from New South Wales, forming many stations. The Government at length took possession of the country, and a settlement was established at Geelong, but was shortly afterwards removed to Melbourne. It is unnecessary to enter upon the history of the squabbles which ensued between the squatters and the Government; these were finally compromised by the squatters being allowed to occupy quietly those portions where they fed their flocks. The colony may be said to be the offspring of Van Diemen's Land, and, contrary to the usual course of colonization, it is a colony formed by colonists.

The first New South Wales settlers, two persons named Hovell and Hume, had, however, been there before the Van Diemen's Land people, having travelled overland in 1824, and reached the site of what is now Geelong. The Mr. Gellibrand of whom we have spoken, together with a Mr. Hesse, both Van Diemen's Land barristers, revisited the settlement in 1836, and were never afterwards heard of. Neither their horses nor anything belonging to them were ever seen, and this has given rise to a supposition that, like Buckley, they were carried off by the natives into the interior. Had they died, or been killed, something would have transpired relative to them; but nothing has, and there are people who yet anticipate that, like Buckley, they may yet make their escape. Buckley has recently died.

Such was the origin of this important colony—hereafter to be the principal province of Australia; not only from its fertility, and wonderful gold mines, eclipsing those of New South Wales, but from its central position. Settlers now began to flock to the new country, and the then Governor of New South Wales, Sir R. Bourke, and Col. Arthur, the Governor of Van Diemen's Land, pointed out to the home Government the necessity of establishing law and order in the new settlement. Lord Glenelg, who was then at the head of the Colonial-office, and who was distinguished for nothing so much as his opposition to the founding of new colonies, forbade this in the most peremptory manner, and had he had the power, as he had the will, to adopt coercive measures, the settlers would have been driven out, and the colony of Port Phillip, as it was termed, in honour of the first Governor, would not have been formed. On such caprices of irresponsible men has the fate of our colonies hung. The settlers, however, cared as little for Lord Glenelg's mandates as for himself; and the more he forbade, the faster they flocked to the happy land, which presented such illimitable resources for their flocks. In 1837 the Government was compelled to organise an administration of the settlement, and in 1839, Mr. Latrobe, the present governor of the colony, was appointed superintendent. An overland passage from Sydney had been fairly established, and flocks were driven from all quarters towards the new colony;—the natives on the road being, as usual, destroyed, and in their turn spearing the stockmen at every opportunity. "Had you much trouble with the black fellows?" was an inquiry made in Sydney, in the author's presence, in 1840, of a farmer recently returned from Port Phillip by the overland route. "Very little," was the reply·

"we only shot fifteen going and coming." It is customary with writers on Australia to notice the fact that there are very few natives in the Port Phillip colony *now*. The above may furnish a clue to the reason why. Pretty certain it is, that the locality has been well nigh cleared of them.

The territory of the new colony is divided into twenty-three counties:—Howe, Combermere, Abinger, Bruce, Haddington, Douro, Bass, Mornington, Evelyn, Anglesea, Dalhousie, Bourke, Grant, Talbot, Grenville, Polwarth, Heytesbury, Hampden, Ripon, Villiers, Normanby, Dundas, and Follett. Our limits will not permit us to mention these farther than by name.

The harbours of Victoria have already been noticed under the general head of Australian Harbours. With the exception of the Murray, there are few rivers of any magnitude, the principal being the Yarra Yarra, Goulburn, Ovens, Mitta Mitta, Barwen, Glenelg, Loddon, and about forty others, with upwards of a dozen lakes. The country is mountainous, comprising the Australian Alps, Snowy Mountains, Granite Range, Alexandrine Range, &c., a spur of which is the great gold field, Pyrenees, Grampians, and many others. Some of the mountains have a great altitude, and their appearance from sea is highly striking and picturesque.

The towns of Victoria are the following:—

Melbourne, the capital, stands on the Yarra Yarra, about eight miles from William's Town, which is the place of anchorage for large vessels, the river not affording sufficient water for craft of more than 150 tons burden. Melbourne is 590 miles from Sydney, and was founded by Sir Richard Bourke in 1837.

The town is built on a gently rising ground, in a fertile valley, extending for two miles along the banks of the river, which just above the city is dammed up in order to keep out the tide, so as to yield a plentiful supply of fresh water to the inhabitants. The streets are laid out at right angles, and in their dimensions are upon an inconveniently large scale. The original plan of Sir R. Bourke was a parallelogram, of about a mile in length by three-quarters of a mile in breadth; but notwithstanding that fifteen years only have elapsed since the foundation of the city, it has long outgrown its former boundaries, the whole of the original space having been covered with wharfs, shops, offices, and elegant private dwellings. A short time ago the busy population were numbered at 23,000; but now the town is comparatively empty, in consequence of the inhabitants having gone, almost *en masse*, to the diggings.

The public buildings of Melbourne are highly creditable to the community which has sprung up with such magic rapidity. First among these must be noticed the Prince's Bridge, spanning the Yarra Yarra by a single arch of 150 feet span. This elegant structurewas erected by a public company at a cost of 15,000*l.* It is built of a hard, durable stone, and forms one of the most prominent objects of the city.

The churches are equally creditable to the spirit of the population, their liberality in this respect being conspicuous. There are two only, St. Peter's and the costly St. James's. It was recently determined to build a third, and in one morning 1,300*l.* was subscribed towards the 3,000*l.* requisite. The Roman Catholics have a Cathedral, called after St. Francis Xavier. Presbyterians, Wesleyans, Independents, Baptists, Quakers, and Jews, have all their respective places of worship. The colonial banks have also two elegant buildings. The theatre is well worthy of its patrons, and the hospitals, mechanics' institute, horse bazaar, and other buildings, are upon an extensive scale.

The city is partly built of brick, generally stuccoed, and partly of stone. The handsome granite fronts of some of the houses would be considered an ornament to any European city. Many of the private dwellings, however, remain partly finished from want of workmen, and this difficulty is not likely at present to be obviated, in consequence of the neighbouring gold mines.

The appearance of the town from the river is very striking, and the citizens are justly proud of it. The extreme ends rise over two picturesque eminences, on the verge of a beautiful park. The air of the place is more thoroughly English than that of any other town of Australia, and the grounds and scenery in the suburbs have all the quiet, subdued interest of an old English domain.

Educational institutions are numerous, first of which ranks the Port Phillip College. The whole of the churches and chapels have also day and Sunday schools attached to them. Before the discovery of the adjacent gold fields, some four or five daily and weekly newspapers were published; but from the elopement of the printers to the diggings, their number has become more circumscribed. Public institutions of all kinds, from Bible societies to cricket clubs, abound, as do mercantile associations for furthering the interests and the commerce of the colony.

The bay, or rather the head of the bay, which forms the anchorage at the mouth of the river, is broad and capacious, affording security for vessels at all times. The port at Hobson's Bay is about forty miles from the head of Port Phillip, and the approach to it is somewhat difficult. William's Town, where the port is situated, was originally chosen as the site of the capital, but was abandoned from a deficiency of fresh water, which still continues. The inhabitants not being able to depend upon their wells, are supplied from the Yarra Yarra by means of tank boats, which also supply the shipping. Even in Melbourne, the water has to be conveyed in carts from the river to the houses, and now that labour is so enormously dear, this is a great inconvenience, as much as five shillings a load having to be paid for water. This will speedily necessitate a regulation of the supply by means of pipes, which only require to be laid down, and the elevation of the upper part of the river will afford the requisite pressure without machinery. The water is at all times abundant and of excellent quality.

In the vicinity of the town are some extensive boiling-houses, in which, during the year 1850, 120,000 sheep and 5,500 head of cattle were steamed down for their tallow, which amounted to 27,700 cwts.

The government of Melbourne is vested in a mayor, four aldermen, and twelve town-councillors. The city is also the seat of a bishopric.

Geelong is the second town of the colony. It is advantageously situated between the Bay of Corio and the River Barwon. Corio Bay forms a part of the western arm of Port Phillip. This town is forty-five miles from Melbourne, and is a place of considerable trade, the greater portion of the wool of the colony being shipped from hence. The harbour of Corio is obstructed by a shoal, which compels large ships to lie at a considerable distance; were this cleared away, which would not be difficult, the harbour of Geelong would become a very important one, from being easy of access to ships, which are often detained by wind and weather before they can make the anchorage at William's Town. Unlike Melbourne, Geelong lies immediately on the waters of this port, and affords greater facilities for loading, discharging, and watering ships, as well as for communication with the interior. The town is well laid out, and amply supplied with water. It is the capital ot the county of Grant.

The remaining towns of the colony have not as yet risen into any great importance. They are as follow:—*Alberton*, the capital of Gipps Land, on the banks of the Albert river, which flows into Port Albert. *Ashley*, in the county of Grant. *Belfast*, at Port Fairy, in the county of Normanby. *Brighton*, near Hobson's Bay, six miles from Melbourne. This is the Margate of the capital, to which the citizens resort in the summer for the purpose of bathing. *Brunswick*, also in the county of Bourke. *Irish Town*, in the county of Grant, near Geelong. *Portland*, in the bay of the same nar

250 miles from Melbourne. This town is rapidly rising into importance. *Richmond*, on the Yarra Yarra, near Melbourne.

The colony of Victoria is chiefly pastoral; and, notwithstanding the short period of its existence, it exports more wool than Sydney. Its soil is fertile enough for any agricultural purposes, and is well watered. Unlike Australia in general, this fertility extends to the sea-shore. It is the very spot for a thriving colony. The climate is delightful; the land in many places is said to be too rich for sheep; much of it is lightly timbered, so that there are few obstructions to agriculture; as it abounds with streams and lakes, and in most parts large farms might be formed without a tree to interrupt the plough. In other portions there are large tracts of natural meadow-land, covered with the most luxuriant grass, which is annually burned and reproduced every season. The portion of the country lying between Geelong and Portland Bay is unsurpassed in Australia; it is mostly occupied by cattle, as it is found that when sheep are pastured on this over-rich land, they are apt to suffer from foot-rot. The principal sheep-runs are on the plains westward of Melbourne, in the direction of the Brisbane Range; others are near the Saltwater and Hopkins rivers. Gipps Land, separated from Victoria Proper by the Australian Alps, is also a great sheep country.

The scenery of the colony is eminently beautiful, and comprises the majestic features of mountains, 6,000 or 7,000 feet high, as well as the equally pleasing ones of the fertile downs and romantic valleys. Mr. Howitt thus generally describes it: —"Around me spread a spacious plain, with trees thinly scattered, and in clumps. On the boundary of the plain are knolls, slopes, and glens, all of the smoothest outline, crowned with the same trees. Beyond were mountain ranges, on which rested deliciously the blue of the summer heavens. Some of these mountains were wooded to the summits; others revealed, through openings, immeasurable plains, where sheep were whitely dotting the landscape; the golden sun being seen at intervals betwixt the long shadows of the trees. There only wanted a stately river to render the scene magnificent."

The colony of Victoria owes its rise solely to the number of its flocks and herds, in which it has surpassed the parent colony; the capabilities of the district, in this respect, making it doubtful whether the possession of gold, even to the large extent in which it is known to exist, can ever compensate for the loss of pastoral wealth with which it is threatened. From the smaller quantity of land, which in consequence of its greater fertility, as compared with New South Wales, was requisite to feed a given number of sheep and cattle, the squatting runs were more compact and more easily managed. From the comparative vicinity of these runs to the coast, there was also greater facility in bringing the wool to the place of shipment. The squatter himself was not shut out from society as is the sheep-farmer in the interior of New South Wales; hence his dwelling was generally of the most substantial kind, and was replete with every comfort and even luxury. From always being within the reach of civilization, even to the extent of regular postal communication with the capital, the most highly-educated persons have thought it no degradation to squat, as it was not necessary to forego any, or scarcely any, of the amenities of social life. Hence the squatters of Port Phillip number amongst themselves the *elite* of the colony, instead of being composed of the rude bushmen, who are for the most part met with at the "*ultima thule*" of New South Wales.

The mode of acquiring leases of new runs in the colony of Victoria is by tender. If any person be desirous of acquiring a run of land which has not been before occupied, he must send in a sealed tender, according to a form which will be supplied to him. In this he will have to set forth a clear description of the run for which he applies, and its boundaries; and must state whether—in addition to the amount of rent to be fixed according to the capabilities of the run—he is willing to offer any, and if any, what amount of premium for the lease. Should two or more persons have applied for runs, so that part of one run would include part of another run, the parties applying will be at liberty to offer fresh tenders. The proportions of stock beyond the settled districts, when estimating the capabilities of a run, are, that 640 head of cattle, horses being reckoned as cattle, shall be considered equivalent to 4,000 sheep.

The process of these tenders is as follows:—The tenders will be received on the first Monday in every month, and will be opened in the presence of officers appointed by the government, who will record the name of the highest tenderer, so as to secure the lease to him in the event of the land proving available. The description of each run tendered for will then be sent to the commissioner of the district in which it is situated, and he will report whether it contains any land already leased, or under promise of lease, or applied for in any other tender. Should any of these circumstances have arisen, the commissioner will state what part of the run is available.

Should the run applied for be available, the acceptance of the tender will be duly notified to the applicant, when the premium, if any, and the first year's rent, will be required to be paid within sixty days from the date of such notification; in default of which the run will be declared to be again open for selection. Until the first year's rent and premium have been paid, the intending lessee is considered to have acquired no right whatever to the occupation of the land tendered for.

The climate of Victoria is superior to any other in Australia. From being the most southerly part of the Australian continent, it is naturally the most temperate, and its mountainous character supplies it with health-giving breezes in abundance. A south-west wind, bringing clouds from the South Pacific, prevails for nine months of the year, and these clouds being thrown in fleecy volumes against the high lands of the colony, are precipitated in copious showers, especially during the winter months. Hence, the greater portion of the colony is well watered, though it so happens that the gold fields of the Alexandrine range, lying on the outskirts of the principal mountain chain, do not get their share, and the mines are in consequence rendered less productive.

With the delightful temperature thus obtained, the summers are never intolerably hot, nor the winters cold. In summer, the thermometer rarely marks ninety-five in the shade, and even at its greatest indications the heat is not oppressive, as there is always a buoyancy in the atmosphere which forbids languor. This lightness of the air is characteristic of Australia, and arises from its dryness. In England, our summer heats, though trifling in comparison with those of Australia, invariably produce a sense of frequently intolerable oppression, from the atmosphere being at all times surcharged with moisture. In Australia this is never the case, persons being able to move about, even in the intensest heat, with no more personal discomfort than a pretty profuse perspiration, but without any feeling of oppression.

As in New South Wales, the change of temperature is rapid, but never trying to the constitution, even though, as is often the case, it is hot during the day, and cold enough at night for a thick coat and a good fire. The hot winds, described under the head of New South Wales, prevail also at Port Phillip, but rarely continue beyond a few hours, and are productive of little inconvenience, never injuring vegetation, as is the case to the northward. The winters of Victoria are very mild, without snow, but with a slight hoar frost in the morning, just sufficient to call up in the mind of the emigrant a reminiscence of the country he has left behind.

In consequence of the abundant pasture, and temperate climate, sheep and cattle have greatly improved, and more attention has been paid to their breeding than is customary in the older portions of the country. The fattening qualities of the grass have produced their results no less than the care of the sheep-farmer. Sheep will now average upwards of a hundredweight each, and cattle of a large size are common. It is now found as profitable to produce stock for boiling down as for their wool, and the fattening capabilities of the country are being turned to the best account. It will, ere long, be as common to see greasy bovine and ovine mountains of flesh in Melbourne as in Smithfield market—the only difference being, that in the former locality they are converted into tallow, whilst the London fleshly abominations convert their eaters into tallow.

Whether to the agriculturist or the sheep-farmer, Victoria offers the most eligible field for industrial success. The crops of the former are certain, of the first quality, and the extent of land available for cultivation is boundless; so that this colony, unlike its neighbours, is as pre-eminently an agricultural as a wool and gold-producing colony. If, as is frequently the case, the grain of the farmer should be reduced below a remunerative price, by the sudden influx of wheat and flour from the west coast of South America, Australian wheat will always, strange as the assertion may seem, find a remunerative market in London—its superior quality over that of America always commanding more than the additional cost of freight. Whenever it makes its appearance in Mark Lane, it is eagerly caught up for the uses of the confectioner in preference to all other. Some four years ago, the Australian colonies sent no less than 250,000 bushels to the London market, averaging 64 lbs. per bushel, the whole of which was purchased at a rate much higher than the current one of the day. In general, however, the colonial rate is too remunerative to permit of grain being exported with advantage, and at times it is highly so from the failure of the crops in New South Wales.

From the fertility of the soil in the colony, permitting the establishment of farms purely agricultural, or nearly so, there has arisen an agricultural class, somewhat analogous to the yeoman of our own country. Most of the persons composing this class were originally of humble grade, and many are now wealthy. There are no drawbacks to the success of a farmer here, such as prohibit exclusive reliance on agriculture in many other parts of Australia. The soil is fertile, the climate genial, the rain abundant, and the crop certain. However small the capital of the emigrant, with industry he must succeed; whilst he is not cut off from companionship, as is the case with the bushman of the interior of New South Wales, who may be said to be condemned to a kind of perpetual solitude. The Victoria farmer is always within reach of civilization, and it will be his own fault if he retrograde from it.

There is no part of the world in which a small farmer may do so well as in this colony, and there are few parts in which more men who began with little or no capital are so numerous in proportion to the population, the majority being shepherds who landed in the colony with nothing but their labour on which to rely. These, after a few years' service, contrived to save up a small capital, and then turned farmers on their own account.

The population of Melbourne in 1851, was 12,384 males, and 10,686 females. Total, 23,070. These inhabited 3,055 dwellings of stone and brick, and 1,018 of wood. They were divided as to religion into 10,695 Episcopalians, 2,955 Presbyterians, 1,630 Wesleyans, 1,560 other Protestants, 5,500 Roman Catholics, 223 Jews, and 16 Pagans.

In 1850, the imports of Port Phillip were 744,295*l.*; the exports in the same year were 1,041,796*l.*; giving an excess of exports over imports of 297,501*l.*

The agricultural fertility of the colony may be seen from a statement of the crops grown in 1850, in two counties only, Bourke and Evelyn. Wheat, 11,807 acres, producing 236,140 bushels. Barley, 1,318 acres, producing 32,956 bushels. Oats, 2,282 acres, producing 59,338 bushels. Potatoes, 1,129 acres, producing 1,693 tons. Hay, 6,641 acres, producing 9,961 tons.

The total population of the colony at the last census, 1851, was 77,345, comprising 46,202 males, and 31,143 females. Of these, 5,020 were engaged in commerce, 3,953 in agriculture, 6,139 in the management of sheep, 1,180 in the management of cattle and horses, 369 gardeners, 6,026 other labourers, 3,4 mechanics and artificers, 3,198 female, and 1,412 male servants, 89 clergymen, 105 lawyers, and 151 doctors.

In 1851, the educational statistics were as follows:—Children at school: Church of England, 2,308; Presbyterian, 397; Free Presbyterian, 61; Wesleyan, 656; Independent, 247; Roman Catholic, 1,421. Total, 5,090.

Since the first edition of this work, in which the above statistics were comprised, many interesting particulars relative to this splendid colony have reached us, the more important of which we subjoin:—

The census returns for the province of Victoria, now before us, up to March 1851, these being taken every five years, show that the population of Victoria has doubled itself during the last quinquennial interval, viz., from 32,879 to 77,345. These numbers do not include the small and diminishing body of the aborigines, which, although more numerous formerly, probably does not now comprise more than 3,000 individuals within the boundaries of the province.

Since the date of the census in 1851 the repute of the gold fields has caused an extraordinary influx of people from the adjacent colonies. This is computed to have averaged, since the beginning of December 1851, from 6,000 to 8,000 persons per month, so that the population, at the present time of writing, cannot be much short of 140,000 or 150,000. Of this number upwards of 50,000 are computed to be scattered over the interior, engaged in the toilsome, irregular, and uncomfortable, but often lucrative occupation of gold digging. We have above stated the increase of the population of Melbourne from 1846 to 1851—the increase of Geelong within the same period is still more striking, viz., from 2,065 in 1846, to 8,291 in 1851. The attractions of the gold diggings have, however, arrested the extension of the towns, which was previously going on at a rapid rate, and also the extension of ordinary social industry. This, however, must speedily return, as vast numbers who have gone to the colony will not encounter either the hard work or the demoralized state of society at the diggings. On the other hand, the towns profit largely from the influx of immigrants which throng their streets, giving to the inhabitants an extensively-increasing and profitable commerce.

The new colony of Victoria dates its independence of New South Wales from the 1st of July 1851, and has commenced its independence under circumstances highly auspicious. Independently of its gold mines, the prosperity and capability of the colony may be estimated by the proportion of its exports to its population, the comparison of which may be made from what has been stated; as well as from the excess of imports over exports. We must regard the exports as the independent and permanent means in a colony of purchasing the imports, and if the former exceed the latter, so much surplus wealth must accrue to the colony. When, in addition to the ordinary industrial exports which answer the above conditions, we take into consideration the millions of gold which have been exported from Victoria, it must stand confessed as the most inherently rich country on the globe.

If, taking the duration of the Victoria colony into consideration—and it is only *fifteen years old!*—we compare with it the condition of the American colonies two centuries back, how striking is the difference! and what must not be the resources of a colony which can have elaborated such marvellous results within so short a space of time! Take, again, the rudeness and discomfort of American colonization at that period, as compared with the facility, rapidity, and safety of modern Australian navigation, what inducements are not held out to emigrants! Even take the present disgraceful condition of British emigration to America, in which the chances of being destroyed by unseaworthy vessels, starvation, and pestilence, are nearly as great as are those of reaching the Transatlantic shores in safety—and who can hesitate as to which country they shall call their adopted home? But when comfort, taste, and refinement, keep pace in the Australian colony with its industrial developments, there can be little hesitation as to which hemisphere those in whose breasts a love of decency and civilization is implanted should direct their steps. The day quickly passed in Australia in which discomfort and inelegance could generally be associated with the idea of colonial life.

Before the discovery of the gold fields, the export produce of Victoria was proportionately larger than that which any other of our colonies has exhibited. In the year 1850, the exports were in value 1,041,796*l.*, with an average population of 70,000, or at the rate or *5l.* per head for men, women, and children. This alone is a proof—not more of the abundant resources of the colony, than that means were not wanting for the luxuries and enjoyments of social life; and these the imports as plainly prove were procured in an abundance previously unknown to the class which now enjoys them.

Since 1850, the gold discovery, which at first threatened seriously to diminish the exports, has, in fact, increased the amount, thus almost threatening the colony with a plethora of wealth. Ordinary industry has, of course, in so momentous a change, been somewhat unsettled, and may yet suffer, but for a short period only, when the amount of industrial exports will—from the vast number of hands which must of necessity turn to the ordinary avocations of life—become almost as astonishing in the rapidity of its increase, as have been the products of the gold mines themselves.

To show the increase of exports in the staple article of wool alone, we will give the official statement for 1844, viz., 4,326,229 lbs. Seven years afterwards, in 1851, the amount of wool exported was 16,345,468 lbs., so that this product alone had quadrupled. The amount of wool exported in 1850 was a trifle more than that in 1851, the difference having been caused by the lateness of the wool season in the latter year, the official year terminating in the midst of the wool-shipping season.

The drawback to Victoria, as to the Australian colonies generally, is its vicinity to the convict colony of Van Diemen's Land. Since the discovery of gold it has been literally deluged with these ruffians, some of whom have been emancipated, though nearly 1,000 actual prisoners have escaped the vigilance, or rather the neglect of their supervisors; the police of Van Diemen's Land being notoriously inadequate or incapable of effectually controlling the convicts confided to their superintendence. Though the evil does not now enter any of the Australian colonies, except the western one, by direct communication, yet to all intents and purposes transportation from the mother country to Van Diemen's Land is transportation to them also, and more especially to Victoria, from its proximity to the convict colony. This mode of inundation with convicts is more objectionable than if they were directly sent, as no preparation has, nor could be made for their supervision, and they are consequently under no control whatever, forming a fearful nuisance to their free but involuntary neighbours.

The report of the Chamber of Commerce of Port Phillip thus alludes to the present condition of the colony:—"We are in the midst of a race of unexampled progress. Our port is crowded with shipping. An exuberant nature has lavished upon us unbounded resources. It is for our colonists to meet these auspicious circumstances by promptitude, energy, and liberality in the path of improvement, in order that the full benefits of our position may be realized." That position must necessarily be a high one, and it is gratifying to see those to whom society looks up, fully aware of their own social duties, and possessed with a determination to perform them.

CHAPTER X.

THE VICTORIA GOLD FIELDS.

Discovery of gold—Streets paved with gold—Another hundredweight—Effects on labour—Official returns—Society in danger—Amount of gold procured—Ballarat—Mount Alexander—Comparative produce—Condition of the diggers—Demagogues—Music at the diggings—Sly grog shops—License fees—Provisions—Bad roads—Bendigo Creek—Direct route to Mount Alexander—Lake Omeo—Forest Creek—Gold circulars.

ON the 25th of August 1851, Lieut. Governor Latrobe wrote from Melbourne to Earl Grey that large deposits of gold had been found in the colony, thus proving the extension of the New South Wales gold field throughout the great dividing range, Victoria forming its southern extremity. Three localities were first discovered,—Clunes diggings, where gold was found in an alluvium of decomposed quartz rock; Buninyong, or rather Ballarat, by which name the locality is best known, where gold was imbedded in compact quartz; and at Deep Creek, only sixteen miles from Melbourne, where the precious metal was found in contact with slate rock. It was afterwards dug up in the city of Melbourne itself.

Governor Latrobe having issued a proclamation, and made arrangements for granting licenses similar to those of New South Wales, the population poured forth from the city and surrounding country to the gold fields, which were speedily found to be productive even beyond those of the adjoining colony. Previous to this discovery, the Melbourne labourers had been emigrating in shoals to the Bathurst diggings. This was soon checked, and not only so, but the tide has turned,—the Port Phillip emigrants have found their way back again, and with them a considerable portion of the population of New South Wales, allured by the superior richness of the Victoria mines, and the ease with which they are reached, from their vicinity to the city.

In addition to the above localities, gold was now found a mile from Geelong—at Mount Disappointment—at the Pyrenees—a valuable copper mine was found at Deep Creek, whilst exploring for gold—and finally, the people of Melbourne began to break up the streets, which were macadamized with quartz pebbles brought from the gold localities. Gold, as might have been expected, was found, so that Melbourne may fairly lay claim to the honour of having had its streets paved with gold.

Gold was next found on the Plenty, a river in the county of Bourke, and the productiveness of the former mines began to be confirmed. The Plenty gold field was ascertained to extend over many miles, the metal being embedded in sandstone and slate, intersected with perpendicular veins of quartz. It was next discovered at Strathlodden; and in another search near Geelong, a lead mine was found.

An old Californian miner now offered, for a reward of 200*l.*, to shew the Government where gold was to be found in abundance within fifty miles of Melbourne. Dr. Burcher, a German geologist, now set about investigating the rocks of the colony, and soon saw enough to convince him that the precious metal was all but universal. The investigation turned out highly advantageous in other respects; for, from not being suspected to be a mineral colony at all, it was discovered that Victoria abounded in slate, coal, marble, silver, and copper; the coal being in the vicinity of the city.

The Ballarat mines were next discovered, and they turned out so productive, that the others were for the most part abandoned. These mines, which are now known by the above name, are at Buninyong, forty-five miles from Geelong, and sixty-eight from Melbourne. By the 1st of October, 20,000*l.* worth of gold had found its way into Melbourne from this place alone.

Gold was now found at Mount Wellington and Mount Alexander in such quantities that the city began to be deserted, the sailors in the harbour running away from their ships at every opportunity; the *Thomas Sparks*, a large merchantman, having only the captain, mate, and two apprentices left. And they did not run without cause. On one day, at the commencement of October, intelligence was brought that some parties had found half a hundredweight of gold, almost in a heap; and whilst the *extra* of the newspaper which circulated the intelligence was actually being printed, another report was confirmed of a hundredweight having been found by a party of fourteen; thus rivalling the famous hundredweight of the New South Wales diggings.

An escort was now established for the purpose of bringing the gold safely from the mines, which were turning out more productive than ever. A party of four had gained in a month sixty pounds' weight of gold, valued at upwards of 2,000*l.* One man obtained sixteen pounds' weight in a day, and another got 90*l.* worth, with no better washing implement than a tin dish.

At Ballarat, the richest yield of gold was obtained from a stratum of blue clay, at a depth of from two to nine feet; this was chiefly on sloping banks, the strata being there the thickest. New localities now turned up, and the country was explored for thirty miles, all containing gold. It was also found at the Anakie Hills and Batesford, in a line of country forty miles south-east of Ballarat; in Anderson's Creek, on the Yarra, ninety miles east of Ballarat, this evidently belonging a separate auriferous range. The Wardiyallock range, the upper branches of Mount Ewen Creek, Fiery Creek, and the Hopkins River, were also found to contain gold. When searching for gold, coal was again discovered within ten miles of Portland Bay; these coal discoveries being scarcely less important than the golden ones.

By November 1851, the gold fields of Victoria had yielded gold to the value of 220,000*l.*; the weekly escort brought down from five to six thousand ounces, of which the Ballarat mines yielded 2,000 ounces weekly. The number of persons at the mines was now about 15,000—a small number for so large a product. The largeness of the product is not, however, to be wondered at when we take the instances of individual success recorded. Seven men obtained nine pounds of gold in one day; four got four pounds; another party of four, three and three-quarter pounds, &c., every stream turning out a Pactolus. Labour was now at a stand-still, shops were being closed, and the towns were deserted by persons of all classes and occupations, for the purpose of joining in the general scramble after gold. Printers absconded from the newspaper-offices, no wages sufficing to tempt their stay, and the papers had to be abandoned, or brought out in a diminished size.

Victoria was now fast outstripping New South Wales in the value of its gold produce. In the first week of December, 12,000 ounces came to Sydney, valued at 39,000*l.* In the last week of November, 13,000 ounces, value 42,000*l.*, were sent to Melbourne and Geelong, and more would have been sent but that means of conveyance were wanting.

A separate escort was now put on for Mount Alexander, which was beginning to yield large quantities; the first escort brought down 1,000 ounces. The Mount Alexander diggings become now so famous and productive, that the Ballarat miners began to leave their locality; not that their own mines were exhausted, but that the other yielded the precious metal more easily, and in greater abundance.

By the 10th of December, the yield had become astonishing, considering the small number of hands. The whole dividing range between New South Wales and Victoria, known as the Snowy Mountains, was one vast gold field. Neither labour nor carts could be readily got for the escort service. The *Melbourne Herald*, of the 10th of December, stated that a *ton and a half of gold* was waiting in Commissioner Powlett's tent for the escort. At Mount Alexander, a man obtained eighty pounds weight of gold in a single hour! and on the 20th of December, there had been collected, in Victoria alone, *ten tons, two hundred weights, eighty-two pounds, ten ounces, of gold!* The produce of one week was, from Mount Alexander, 23,750 oz., from Ballarat, 2,224 oz. only, as the miners were rapidly leaving for Mount Alexander, and from Geelong, 682 oz., making a total for the week's product, of 26,656 oz., or one ton, two hundred and twenty-one pounds, four ounces.

Gold was now discovered at Albury, on the river Murray, and by Mr. Oakden, in Gipps Land, but new fields were little cared about, as it was evidently impossible to exhaust the old old ones by any number of hands likely to be placed upon them.

On the 20th of December, the following official account was published :—

In the Banks of Melbourne and Geelong, on the 19th of November, there were 42,000 oz. of gold, of the value of 126,000*l.*

In private hands, in Melbourne and Geelong, 8,000 oz., value 24,000*l.*

Amount by escort, Nov. 19,—10,138 oz., value 30,414*l.*

Amount by escort, Nov. 26,—12,106 oz., value 36,318*l.*

Amount by escort, Dec. 3,—16,669 oz., value 50,007*l.*

Amount by escort, Dec. 10,—26,656 oz., value 79,968*l.*

Amount by escort, Dec. 17,—19,492 oz., value 58,476*l.*

Amount estimated to have been brought in by private conveyance,—28,353 oz., value 85,059*l.*

Amount estimated in the hands of diggers on the gold field,—80,000 oz., value 240,000*l.*

Making an aggregate of 243,414 oz., or 20,282 lbs. 10 oz., or 202 cwt. 82 lbs. 10 oz., or 10 tons, 2 cwt. 82 lbs. 10 oz. This estimate was given when the gold mines had scarcely three months before been known to be in existence.

The extraordinary yield of gold now began to tell in England. In April and May, six ships arrived in London—with *eight tons of gold on board*, in addition to what had previously been received. It was now estimated that the annual yield of Victoria would be five millions, and that of New South Wales three millions.

The disorganization of society in the colony was, as might have been expected, great; and the want of hands for ordinary labour was severely felt. Added to this, the number of reckless spirits who had been drawn together from all parts, and especially from the neighbouring convict colony of Van Diemen's Land, was considerable, and they shewed symptoms of resisting the law, which, from the absence of an adequate military force, the authorities had no power of enforcing had it been resisted, whilst the police force, following the example of those whose lives and property they had been appointed to guard, had gone off bodily to the diggings. Happily the good sense of the majority had prevailed, and order has been preserved, though not without the manifestations of disorder.

A circumstance now occurred in the colony which presents a caricature of our monetary system. One escort took back from Melbourne to Mount Alexander, 50,000*l.* in bank-notes, not worth 50,000 farthings intrinsically, for the purchase of that amount of solid gold. Note engravers and printers in the colony are represented as not being able to make bank-notes fast enough for the demand, and one bank had actually to borrow notes from a neighbouring colony.

By the beginning of February, in the present year, not less than 20,000 people had arrived at the Victoria mines from the neighbouring colonies. In consequence of this, the production of gold was consequently greater, and the weekly estimate was 20,000 oz., or at the rate of 1,000,000 oz. per annum. The total exports of the colony at this date had reached nearly a million. Gold has begun also to be found in considerabl quantities at Wardy Yallock, Mounts Macedon and Cole, also in the vicinity of the capital, and in the Western Port district.

Wages are now very high. Reapers could only be engaged at 28*s*. per day, and they, with commenable good feeling, worked rather for the sake of saving the crops than for the wages. Servants, when they condescend to remain as such, demand, and obtain, 60*l*. a year, and food. This cannot last, or ruin must come upon all the industrial pursuits of the colony. From the impracticability of getting men to attend to flocks and herds, these are almost unsaleable. In short, whilst the gold-hunters are flourishing, the agricultural and pastoral interests are perishing.

The following *resumé* of the progress of the Victoria gold fields written up to the latest advices, will give a detailed account of all that is at present known relative to the production of the Victoria gold fields.

The first gold escort from Ballarat was sent down on the 1st of October 1851, and brought down 960 ounces. On the 19th of November 1851, the first Mount Alexander escort came down, and the total escort returns of the day from the two gold fields was 10,138 ounces. The quantity still increased, and on the 10th of December following had reached 26,656 ounces. It then fell off, and for some weeks the return was from 11,000 to 12,000 ounces. The total quantity brought down by escort up to the 26th of February 1852, was 234,364 ounces. That this return was greatly below the real production was proved by the Custom-house return of exports to the 28th of February, as having been despatched by ships to England and Sydney, the total of which was 455,061 ounces, or nearly double the escorted quantity.

Further inquiries revealed also that on the 2nd of March following there were lying in the colonial treasury 83,030 ounces, and in the banks in Melbourne and Geelong 61,199 ounces. This made a total ascertained production of 549,270 ounces. It was also estimated that 24,000 ounces were held by private individuals, diggers, &c. in the towns, and that 80,000 ounces additional had been produced, and was lying at the diggings, allowing an average of two ounces each to 40,000 diggers. Leaving out the large quantity which had left overland and by sea in the hands of diggers without any record of the amounts, the estimated amount was 104,000 ounces, which, added to the official amount, gives a total of 653,270 ounces, which, at the English standard price, has a value of 2,546,821*l.* produced in little more than five months. Later accounts, up to April 1851, state the amount of Victoria alone at upwards of *three millions.* There now upwards of 50,000 people at the mines, a considerable portion of whose produce now finds its way eastward, especially to the Spanish settlements in the Phillipine Islands, where Australian gold sells as high as 4*l.* 10*s.* the ounce.

Since this volume first went to press, the Chamber of Commerce of Melbourne has given a detailed account of the progress of gold discovery in that province, an abstract of which is well worth preserving as a record of one of the most important events of modern times.

When Mr. Hargreaves, as has been before recorded, returned from California, confident in the existence of gold in the Blue Mountains of New South Wales, and his sagacity had been completely justified by the result, the colonists of Victoria, equally confident in the prognostications of the Rev. Mr. Clarke—from whom Mr. Hargreaves had in no small degree drawn his inspirations—immediately set about investigating the auriferous character of their own colony. The soil, on trial, yielded the expected treasure, and a general excitement for some time reigned throughout the settlement. "Prospecting" was vigorously carried on throughout the whole province, stimulated by the offer of two hundred guineas to the successful discoverer of a workable mine. Rumours of successful discovery floated down at intervals from many a hill, dale, and winding creek of the interior, and frequent samples of gold began to be exhibited in claim of the reward, which, however, never appears to have been given.

In August 1851, a number of persons had established themselves as gold diggers on Anderson's Creek, and many of the townspeople gratified their curiosity by visiting the "Victoria gold fields" In the month of September the attention of the colonists was seriously directed to the westward, where the locality of Ballarat was beginning to acquire a Californian reputation. In this month the Government weekly escort was established from this place to Geelong and Melbourne; and, shortly afterwards, a license-fee of thirty shillings per month, as in New South Wales, was imposed upon all intending diggers for the privilege of searching for and gathering the gold.

In October, 7,000 persons were congregated at Ballarat on an area of something less than a square mile. At first this process was simply that of washing the surface gravel, which occasionally yielded considerable fragments of gold, but afforded on the average but indifferent remuneration. The subjacent pipeclay, of a light bluish grey hue, was soon found to yield more abundantly. The perforations extended to a depth of thirty feet, and the labour was severe in breaking through a coarse gravel, filled with large nodules of quartz cemented by an infiltration of ironstone. In this celebrated "blue clay," the gold was found in irregular veins, sometimes in "specks" or fragments so large as to be distinctly visible to the workman when their bed was laid open by the pick.

At Ballarat, however, success was very far from general, and "prospecting went on in other quarters till in October also the superior riches of the Mount Alexander district became known, when Ballarat was speedily thrown in the shade, and great numbers of miners migrated to the former locality, which has ever since maintained its celebrity. At the present time, 50,000 persons are congregated in the vicinity of the Mount, at spots bearing diverse names, but all equally productive. The drawback to the full development of the riches of the locality is the want of water for a great portion of the year, many having to cart the soil for five or ten miles before they can meet with a sufficient quantity of water for washing.

The vicinity of Mount Alexander soon becomes dry, and the rains do not set in till June; so that, from the fact of many persons having been accumulating vast heaps of soil in anticipation of the rains, a great yield of gold may confidently be expected, notwithstanding the rude and inefficient means adopted for the extraction of the precious metal.

The immense export of gold from this district does not permit the smallest doubt as to the inherent riches of the soil. If a comparison be instituted between the mines of Victoria and those of Europe or South America, the result will be vastly in favour of the Australian mines, notwithstanding that in the former old mines all the skill which science can afford is brought to bear on the pursuit—whilst the process at the Australian mines is the rudest imaginable. In Brazil, the most expensive machinery is engaged in extracting an ounce of gold from a ton of stone. In the richest of the Russian mines, the produce is not more than a pound troy to 140 tons of material—in some to 190 tons, and in others to 210 tons of *diluvium*. In Victoria, the miners grumble if they cannot obtain at least an ounce of gold from a single cart load of soil, even by their rude methods, which probably waste double that which is collected. In thousands of cases, more than this is gained in a morning before breakfast.

At Mount Alexander the diggings present much the same geological features as the Ballarat mines, the older rocks predominating. Quartz is no doubt the original as well as the prevailing matrix. The gold, in a variety of forms and dimensions, is found in or near the masses of quartz rock which frequently obtrude on the surface, or it is mixed with or subjacent to quartz in another form, viz., that of the gravel into which, by the action of water, and from other causes, the masses of rock have been reduced.

As compared with most gold in the native state, that from Ballarat and Mount Alexander is remarkably pure and dense, being in general purer than standard gold; much of that which comes to this country being worth upwards of 4*l.* per ounce.

The following admirable *resumé* of the condition of the gold miners has recently reached us from the colony, and forms a fitting pendant to what we have already advanced relative to the locality of the mines. It is from a most trustworthy source, and will render our subject complete on all points which can interest the intending emigrant.

"Turning from the *locale* of the diggings to the *morale* of the diggers, I can, from personal experience and without the least hesitation, affirm, that the tales of robbery and violence are very much distorted and magnified. When it is considered that a mass of some forty thousand souls is here assembled, very many of them coming fresh from an association with professed criminals, amongst whom robbery is a boast, and a deed of violence a recommendation, it is not at all surprising that some unlawful acts should be committed; but in a town population of like amount, guarded by a well-disciplined protective force, and avenged by a cunning detective, similar acts would be committed. At the diggings, moreover, I contend that, taking the amount of population, there is not a fourth part of the crime committed that there is in any town on the Australian continent; and yet there is, in the one case, the almost total absence of police protection and of household security; whilst, on the other, bricks and mortar, and solid doors, interpose between the thief and his plunder, and daily and nightly patrols are on the watch. In fact, I have often been astonished, in passing some of the stores, that the temptations to robbery which they offer have not more frequently been taken advantage of. I have remarked the sides of some stores composed of nothing more than a few gunny bags sewn so loosely together that between the interstices might be seen shirts of calico, woollen, and serge; trousers, belts, and all the other paraphernalia so dear to the digger's heart. These would require only one thrust of a knife to change ownership, whilst the thief need be under no dread of detection. As to the Lynch law, that exists only in name, no one instance having, act, occurred. Some few designing men have endeavoured, for their own purposes, to introduce this odious system under the more genial name of self-protection; but, thanks to the good sense, manly feeling, and true British spirit of the diggers, the proposition was scouted with all the contempt and loathing it deserved. Even the publicly-made assertion of one of the self-named leaders of the diggers, that 'the Government were prepared to wink at a certain amount of Lynch law,' did not in any way turn them from their honest purpose of appealing only to the law of the land, though the agents of that law were few amongst them, and though its proverbially strong arm was weakened by distance.

"After much consideration and inquiry I have come to the conclusion that nearly the whole of this outcry of the insecurity of life and property at the diggings has originated with a few only—men of a low mental calibre, who, in ordinary and peaceable times, struggle in vain against insignificance, to which their want of sterling talent dooms them; and whose only chance of rising into notoriety is, consequently, in the turmoil and disturbance of troublous times. To such as these it thus becomes an object to cause discontent, and to foment anarchy and discord, as, like the bubbles of noxious gas that rise to the surface of some pestilential pool only after strong agitation, these men, by their aptness at stringing together a few clap-trap phrases, manage thus to raise themselves to a position which they dignify by the name of a leader of the people. Some of these are acted on simply by a love of notoriety, but some few have a still deeper object. Penniless in purse, and almost without a standing in society, by thrusting themselves forward as the mouthpiece of the people, in delegations to the Government, to the officers of which they are as obsequious in the bureau as they are insolent in the face of a public meeting, a desperate game for place is played, in the hope their influence may be deemed valuable to meet the storm which they themselves have raised.

"So far as I have seen of the diggings, the days are spent i toil and the night in rest, except only in the neighbourhoo some of the sly grog shops, in which scenes of drunkenness and debauchery may be sometimes witnessed. As the sun sets, the diggers retire from work, and the savoury smell from a thousand frying-pans indicate the kind of employment to which they next devote themselves. No sooner is the evening meal finished than some bugler strikes up some lively or well-known air, at the conclusion of which some rival performer advances his claims to superiority. At the conclusion of his essay, during which there has been the most profound silence, loud shouts of applause greet him from the tents around him, whilst those in the neighbourhood of his antagonist answer by mocking, by good-humoured cheers, joined by recommendations to 'lie down,' and 'shut up.' Anon the first bugler again commences, and instantly there is silence, and when he concludes his friends cheer, whilst the neighbours of his rival pass some playful commentary on his performance. In this way the rivalry is kept up for some time, till the buglers get tired and bid each other good-night, leaving the silence to be disturbed only by the barking of dogs, the neighing of horses, and the firing of guns. One night we were amused by three players on the cornopean at different parts of the creek, who replied to each other, one selecting English, another Irish, and the third Scotch airs; I need not tell you what a beautiful effect this had, especially as after each air a volley was fired, almost with military precision, in the quarter whence the musician gave forth his sweet notes. Hore's brass band has latterly been playing for an hour or so every evening, and the shout that greeted, each time as it was concluded, must have rather astonished the knowing-looking old opossums in the gum trees on the ranges overhead. Did you ever see an opossum on a moonlight night sitting in the fork of an apple tree looking at you as you rode by? The gaze of amazement and curiosity which they give, is perfectly inimitable; and I often fancy what a rich treat it would be, if one could only catch a glance at three or four of e old men 'possums, squatting in solemn conclave on the above the creek, and mark the knowing, but inquiring look of the queer old customers, at the unusual scene below them.

"Picture to yourself some forty thousand souls, for so many there must be, all resting under tents, the ends of which are triced up in hot weather to catch any passing breeze, many of them unguarded by a dog, and sleeping as sound as men who labour hard through the day always sleep, and then wonder, not that there are the few trifling depredations that we hear of, but that these are not far, very far, more. But, in truth, any person who keeps himself quiet and orderly, has little fear of being molested or disturbed; it is only those who, hankering, after drink, resort to the sly grog shops, that are in danger of being robbed; and these, thrusting themselves into bad company, cannot expect aught else than to pay the penalty of it. To such as these, but small compassion can be extended; they know the danger they brave, as all are well acquainted with the fact that the lazy, the criminal, and the scheming make these tents their resort. This fact is well known to the authorities on the diggings, and too much credit cannot be given to the commissioners for the exertions they make to put down these sinks of iniquity. Hardly a day passes without at least one of these tents being burnt by the police, whilst some days witness two or three conflagrations.

"When you come to consider the large number of men that the gold commissioner is called upon to overlook, and the very small constabulary force that is placed at his disposal, you will naturally think, with many others, that if he be active in his exertions, his whole time will be consumed in hunting up sly grog shops. As it is from these that springs the crime we have upon the diggings, it is naturally a first duty to keep a sharp eye upon them; and nothing but the most continuous activity could be of any avail to check an evil which, with the slightest negligence, would speedily swell itself to an extent that would destroy the last ruins that remain of the social fabric. But, in addition to his duty, the commissioner has the task of collectin the license fees; and to him the numerous disputes which amongst the diggers are referred for arbitration. Putting down the grog shops, and settling disputes, leave but small time for the collection of licenses, especially as a very large demand is made upon the commissioner's time by the returns he has to furnish to Government, and which he has to draw out himself.

"Thus it is by no means extraordinary that only a very small proportion of diggers have paid the license fee; the only chance of calling the men to account being when settling a dispute at a water-hole, when those employed at the different cradles are called on for their licenses. With these they are of course provided, for the nonce. I have been at some considerable pains to learn the proportion which those who have taken out licenses bear to those who are working without them; and I really think, although you may perhaps deem my estimation out of all proportion, that not more than one-tenth of the diggers have paid the fee. Many have been up to the commissioner's tent to take out their license, and, after dancing attendance for two or three days, have been unable to get it, and have at length given up in despair all hope of obtaining it, and set to work without it. Finding themselves unmolested by commissioner or police, they have considered that the thirty shillings per month was as well in their pockets as in the coffers of the Government, especially as they got nothing in return, and thus they have continued to the present time. Others, more wide awake to the system, have saved themselves the waste of time of going to the commissioners, and have continued to work since their arrival without paying, but with an intention to pay whenever applied to. As to the commissioners visiting the holes, the thing is out of the question, as they are so scattered that a week would find but a very small portion of their charge visited; neither is it to be expected that the diggers should waste three or four days in every month in their endeavour to pay the tax. I hear that it is the intention of Government to remedy this part of the il, by appointing an officer to be attached to each comioner for the sole purpose of granting licenses. If this were the case, I feel convinced that the large majority of the diggers would readily pay the license fee, and would not even object to going for it, provided that no more than one day was to be lost to obtain it. When such an arrangement shall have been made, the man who refuses to pay will be set down as a schemer and an interloper, and to save his own reputation with those surrounding him, will be compelled to do as they have done before him.

"With an increase in the amount received, we may naturally anticipate an increase in the police force of the diggings, and thus will be provided an additional means of discovering those who shirk the payment of the fee.

"To give anything like an accurate guess at the daily amount of gold raised, would be absolutely impossible, for it is so variable that the return of one day is no guide whatever to that of another. Besides this, fully two-thirds of the diggers are unable to wash as they would do if there were plenty of water in the creek. Many of these are now employed at dry digging, or nuggetting as it is called here, in holes already sunk, saving, perhaps, a little of the choicest earth, which they bring home with them to wash in a tin dish, and setting aside the likely-looking stuff for the time when the cradle can be brought into operation. These are just making enough to clear themselves, with perhaps a trifle to spare, looking forward to the rainy season to pay them. Others, again, are prospecting, or sinking holes in the various gullies which give promise of gold; many of them have been eminently successful, and many localities have been discovered which will turn out a very large amount of gold when water shall be more plentiful. Thus all are in good heart, knowing well that, with the first fall of rain, a rich harvest awaits them. Even as it is now, every man may obtain a good day's wages if he chooses to stick hard to work, with of course the chance of falling upon a pocket if he should be in luck. Thus it is that the amount of gold procured still continues so large.

"And with respect to this amount, I am in a position to prove that not one-half of the gold raised on the diggings reaches Melbourne by the escort; fully one-half of the produce of the mines, if not more, is brought into town by individuals; and many a poor travel-worn devil, for whom one would not give sixpence, may be met upon the road having on his person gold to the amount of some hundreds. This again shows the state of society to be not quite so bad as it is represented to be; for were crime so rife as reported, the roads would be infested with depredators, and hardly a traveller allowed to pass without paying toll to the knights of the road. Your humble servant, for instance, brought down gold to a very large amount for his friends, and having rather more confidence than ordinary in the general honesty of the human kind, might have fallen an easy prey to any bushranging adventurer, his only offensive weapon being a light riding-whip, his only arms a small pocket-pistol, of a restorative instead of a destructive character.

"That large amounts still remain up at the mines, in the hands of individuals, is also certain, for many persons have a habit of planting their gold in some secure spot, gradually adding to their store, until it accumulates to such an amount as will enable them to follow the bent of their respective aspirations.

"On these last two points I shall be able to give you some further information hereafter, after more extended inquiry, as I purpose returning to the diggings in a few days for a longer stay and a more comprehensive inquiry than I have yet made.

"Coming now to the prices asked for provisions at the diggings, I find that a writer in the *Argus* has anticipated what I was myself about to remark. The charges are, on an average, about one hundred per cent. on Melbourne prices; the more necessary the article the greater the cost. This is owing almost entirely to the high rate of carriage; for, with roads in such a fearful state as our paternal Government leave them, the journey becomes a tedious and also a dangerous one, and many of the carriers who have once been the road cannot be prevailed upon at any price to face it again. The bridges on the route are all insecure and dangerous to the last degree, that over the Coliban threatening to sink with every loaded team that passes over it; whilst many of the water-courses in heavy boggy soil will become impassable in winter. The diggers are now almost at a stand-still for want of rain, but when rain comes, I much fear that the road will in many places be impassable, and that the mines will have to be deserted from the impossibility of procuring supplies. All this has been known for some time—has been canvassed by the press, and talked over by the people—and yet our Government do nothing. Like Mr. James Macarthur, they adopt the motto, '*stare super antiquas vias;*' and as long as an additional use of the whip can bring down the escort, and put 300*l.* or 400*l.* into the Government money-box, the executive will remain perfectly quiescent. I certainly do not like to join in the cry of a mob, and should feel rather inclined to take a lenient view of the acts of the Government, when I found that a general yell was set up against them, for this invariably looks like factious opposition. In the present instance, however, the mismanagement of what has been done, and the total neglect of what should have been done by the executive, is so glaring, so manifestly opposed to all that we have a right to expect from a good Government, that I should be acting the part of a traitor to the best interests of the colony did I attempt to lay the blame on the shoulders of any but those who deserved it. Hitherto the Government have incurred the responsibility only of having given the diggers dear food; in a few months the ghosts of famished hundreds will call for judgment upon them, whilst the execrations of ruined thousands will ring in their ears, and bid them to a fearful reckoning.

"That the present amount of population at the diggings will be able to find food during the winter is admitted on all hands to be impossible, unless some improvement be made in the mode of transit; and even then it is doubtful if a sufficiency of carriage can be found. It will be then that we shall have to fear the social disorganization that is now spoken of; it will be then that robbery and crime, goaded on by hunger, will stalk abroad; it will be then that the bowie-knifed and rifled Lynch will make his appearance; whilst our dozy executive will lie snugly ensconced behind the red-coated regiments of the mother-country, and look calmly on the anarchy that their torpid policy has educed."

Since the above was received, a new gold locality has been discovered in the Bendigo Creek—still in the vicinity of Mount Alexander—which bids fair to equal that celebrated deposit of wealth. The following communication will show the condition of this, as well as what is being done to render access to the various gold fields easy:—

"I had hoped to have been able at once to have launched out into a description of Bendigo, throwing aside the *politique* of the mines for another period; but as I am aware that news is of more importance to you than any mere descriptive commentary, I am again compelled to turn to that with which I had erroneously imagined myself finished. Hardly will you be prepared for the announcement that the Government is bestirring itself, not giving the short, gasping snort, the lazy turn, or the indolent yawn that betokens a wakening, but actually starting up into full life and vigour, and working away as manfully as if it had never in its existence been caught napping. We have had a regular stir about the roads; not only have at least eighty men been employed making the road from the commissioner's, at the junction of Forest and Barker's Creeks, but orders have been given by Mr. Wright, the chief commissioner, that reserves should be made for roads through the diggings, so as to leave thoroughfares to and from such places as may require them. This is a piece of forethought for which, to tell you the truth, judging from other matters, I had not given the commissioners credit. The trees on either side of these lines are to be marked, and those in the centre to be removed, making a roadway sixty-six feet wide. No holes are to be allowed to be sunk within seventeen feet of the roadway, so that a clear space will be left on each side for regular and continuous lines of tents; a very great advantage, not only as regards regularity, but also for the purposes of protection. Mr. Chauncey, a gentleman lately from Adelaide, has been specially engaged to survey and mark out these lines, and they will be made as soon as the state of the labour market will permit. All this has been brought about by a petition on the subject, which was presented to the resident commissioner, after having been signed by a large majority of the diggers on the Upper Forest Creek. Although I may have gained the reputation of a grumbler, having hitherto—more pity that it should be so—found nothing whereon to say a word of praise, I am now perfectly willing to concede to Mr. Wright every credit for the attention he has paid to this petition, but also to add that he has greatly enhanced the boon he has conferred by the promptness with which he has acted.

"I feel convinced that you will be pleased to make public the announcement that the Government are progressing rapidly with the diggings' road. From the commissioner's, several embankments have been made across some of the blind gullies on the route, the sidlings have been levelled, and the roadway generally freed of obstructions. Over the mouth of Friar's Creek, where the road crosses, a bridge, after the primitive style that I have mentioned in my first letter, has been thrown, but I am afraid that the cross logs which form the roadway have not been securely pinned, if at all, and, if such be the case, they will not last long. Where the road turns off from the diggings towards Kyneton, great improvements have been made; several very nasty pinches and dangerous watercourses have been either filled in, or have had bridges thrown over them. At one spot in particular—I allude to the junction of the Forest and Friar's Creek roads—a great and beneficial alteration has been made. The road to Forest Creek here branched off to the right, winding round an exceedingly dangerous sidling hill; to avoid this, it was usual to take the Friar's Creek road for a short distance, and then turn off to th right round a sidling range, only a whit less dangerous than that which was thus avoided. Now, however, the road is carried straight on, a good substantial bridge having been built over the watercourse or creek, the high banks of which rendered the dangerous round I have alluded to absolutely necessary.

"Further than this spot the road-makers have not yet got, but compared with ordinary government work, the men have not got on amiss. From the commissioner's to the spot I have alluded to, is about nine miles, and a month has scarcely elapsed since the work was commenced. I passed along this road on the Wednesday following the two days' rain, and I can assure you, that you citizens of Melbourne would have envied us the road. That which had only a few days previously been dust to the depth of five and six, and even eighteen inches, had been firmly bound together by the rain, and presented a smooth hard surface, that it was a perfect pleasure to trot over. The large quantity of ironstone that mixes with the soil of the ranges, may perhaps explain this. I can only confess that I was most agreeably surprised, as from the dust of the previous week, I had naturally anticipated having to wade through a perfect slough.

"Neither have the authorities been backward in providing for the security of the lives and property of the diggers. Six new stations are to be formed, viz., at Bendigo, at Friar's Creek, at the Loddon River, at the Adelaide Gully, at Golden Point, and at the Sawpit Gully on the Melbourne road. The last of these stations will be a most important one, as here the roads to Bendigo, the Forest, and Friar's Creeks diverge from the main Melbourne line, and it is proposed to station a police magistrate here. Your correspondent has already informed you that a notice is to be conspicuously exhibited here, warning all parties to at once take out licenses, or that having passed this spot they will be liable to be seized. The chief duty of the assisting commissioner here will be to issue licenses, and by such a course of proceeding, much inconvenience and probable expense will be saved to the digger, who now must actually be on the diggings, and therefore be liable to be apprehended, before he can reach a commissioner's to take out a license; the delay consequent upon having to wait the leisure of a commissioner with so many other calls upon his time, will also be avoided. I hear that a police magistrate is also to be located at Bendigo; these, with the one now stationed at the Forest Creek, will make three police magistrates, and the advantage of separating the revenue and police departments are too obvious to require me to dwell at any length upon them. Suffice it to say that the diggers would fancy they had but small justice, if Mr. Commissioner A. were to be the informer one day with Mr. Commissioner B. as judge, and on the following day Mr. Commissioner B. were to be the informer, with Mr. Commissioner A. for judge.

"At each of the above stations are to be placed an assistant-commissioner, an inspector, a clerk, a watch-house keeper, a corporal and two troopers of mounted police, and two corporals and fourteen men of foot police; besides which, at the Bendigo Creek and Sawpit Gully, a number of pensioners will be stationed. An estimate of the expense of the work required to be done in erecting these stations has been sent in, and from all I can hear there is every probability of its being commenced at once. Thus then you see the prospects of the miners for the winter have already become more cheering, and the energy of the officials has given additional force to the operations of the diggers. They see their safety and their comfort looked after, and the gloomy forebodings of what awaited them in the winter, are gradually passing away. They no longer dread being cut off from their supplies by the impassable state of the road; they no longer fear that the gold which they earn by day will be wrested from them at night; and strength is thus given to their arms, while vigour is added to their search. In all this there is much food for consideration, and he who looks on warmly may learn much. He may see how the activity and watchfulness of a government affect the spirit and enter prise of a nation, giving strength to the one, and enlarging the scope of the other. He may also mark how the imbecility or supineness of the guardians of a state may endanger its well-being, and may turn that to a bitter curse which would otherwise have been a source of undoubted prosperity.

THE DIRECT ROUTE TO MOUNT ALEXANDER.—Much ignorance prevails at the present moment as to the nearest and most direct route to Mount Alexander. We give, on the authority of a correspondent, the road which parties proceeding from Geelong to Mount Alexander diggings should take, the total distance being eighty-seven miles, as nearly as can be estimated. From Geelong the first stage should be to the bridge crossing the Werribee, on the Melbourne road, a distance of twenty-four miles; from thence to Pyke's station, twelve miles; after which make for Collyer's station, three miles; and so on to the Bush inn, Mount Macedon, a distance of eight miles further. The road from the Bush inn to the diggings is then forty miles. Our own impression is, that a still more direct road would be by Ballan."

NEW GOLD-FIELD.—I have to record another grand discovery of an extensive gold-field. It is situated around Lake Omeo, at the foot of the Australian Alps, near which flows the river Mitta Mitta, which has its source from the Snowy Mountains. The discovery of this rich field of gold was thus made. Several persons, for the last three or four months, had been taking nuggets of gold of a large size to Maneroo for sale, but declined stating from whence it was obtained. The Rev. Mr. Clarke, who has been on a prospecting tour under the auspices of the Sydney Government, arrived at the spot, and at once pronounced the important geological fact, that the district of Lake Omeo is the *matrix* of the Australian gold-field, from whence has flowed the auriferous deposits at Mount Alexander and the other gold regions now so celebrated for their grand results. The Rev. Mr. Clarke has left to make his report to the Sydney Government, by whom he is ed; and Mr. Commissioner Smythe is still here, on behalf of the Government of Victoria. These facts may be relied upon. Besides other authority, I may mention that of Mr. Nicholson, whose station is on the Mitta Mitta. In the rainy season the gold-field of Lake Omeo will be unapproachable. The conclusion is, that this locality will be the summer diggings, and Mount Alexander the winter diggings. Thus the gold-searchers will be a migratory population.

FOREST CREEK.—New diggings have been found on the Coliban, fifteen miles from this, as also some rich yields on the Porcupine; indeed it would be hard to say where gold could not be found in this neighbourhood, if sought for; every week brings with it fresh discoveries, and if the water last, thousands will find employment for months to come. Some ten or fifteen hundred persons have left the ground since my last, composed principally of small farmers, who are returning to get in their crops, but their places are quickly taken up by new comers. I counted one hundred horse drays between here and Kyneton to-day.

GOLD CIRCULAR.—The price of gold has been throughout the week 60*s*. The Wardiyallock gold field has turned out unprofitable —the diggers not realizing as much as pays their expenses. The Mitta Mitta gold field, another of our new discoveries, is spoken of favourably. The water is said to be abundant, which, if such be the case, and the yield of gold turn out to be anything approaching in quantity to that at the Mount, will operate as a strong inducement to move to that quarter. The late rains which fell at the Mount may have the effect of satisfying those at work, and preventing emigration to the new field; also of allaying the dysentery, which has prevailed of late to some extent. A blight in the eyes has appeared among the diggers, which has been the cause of compelling several parties to break up and come to town for medical advice. Success still attends many at Mount Alexander. John Jones's party, from Gipps Land, arrived in town this week, bring with them three nuggets, one weighing 3½ lbs., the other two about 27 ounces. The largest nugget was dug out one morning before breakfast. They had with them besides, about 14 lbs. of gold dust, the whole of which was the result of six weeks' work, the party consisting of five individuals. A number of cases, of even greater success t the above, have come under our observation this week, to recapitulate which would extend to undue limits. The exportation of the precious metal still continues great. The *Aberfoyle* will sail early next week for London, with about 35,000 ounces. The English banks have increased their advances on gold hypothecated with them to 50*s*. per ounce. The increase to our population this week has been about 1,500 souls.

	oz.
Gold previously shipped from Victoria	303,471
To London, per *Christabel*	54
To Sydney, per *Dart*	1,876
To Sydney, per *Cape Horn*	1,225
To Sydney, per *Favorite*	3,205
	309,831
Which, at 60*s*. per ounce, amounts to	£929,493

Exchange on London, on drafts against gold, at 50*s*. per ounce, by the English banks, nine per cent. discount; and by the Bank of New South Wales, 55*s*. per ounce, and ten per cent. discount. Freights half per cent. on 60*s*., with ten per cent. primage.

Feb. 7, 1852. EDWARD KHULL, *Bullion Broker*.

GOLD CIRCULAR.—Our gold market this week has taken an unexpected rise from 60*s*. to 63*s*., owing partly to the competition amongst purchasers from Sydney, who came here per *Shamrock*. We have not much of a cheering character to report as to the state of matters at the Mount. The want of protection, the want of water, and disease in the eyes, are the complaints put forth by those diggers we have come in contact with this week; notwithstanding which hundreds are eagerly pushing off to the gold field on their arrival here. Some brass was again offered this week; but the impostors have been secured. We trust that such an example will be made of them as to deter others from a like attempt. We do not anticipate that the act of the Governor and Council of South Australia, in fixing the standard price of gold at 3*l*. 11*s*. per ounce, will have the effect intended, viz., of causing an emigration from this to Adelaide. The number of successful diggers, who have sold their gold here, and have returned to Adelaide with the proceeds in the shape of drafts on the bank, is very great. They, one and all, intend coming here with their wives and families to take up their permament abode, to resume their operations at the Mount, as soon as the rains set in, which generally takes place in the month of April. The increase to our population this week has been about 1,200 souls.

	oz.
Gold previously shipped from Victoria	309,831
To Sydney, per *Prince of Wales*	5,109
To London, per *Aberfoyle*	40,272
To London, per *Helen*, from Port Fairy........	1,286
To London, per *Cornelius*, from Portland	795
	357,293
Which, at 60*s* per ounce, amounts to........	£1,071,879

Exchanges on London, drafts against gold, hypothecated, 50*s*. per ounce, and nine per cent. discount, by the English banks; and by the Bank of New South Wales, 55*s*. per ounce, and ten per cent. discount. Freights, half per cent. on 60*s*. per cent. primage.

Feb. 14, 1852. EDWARD KHULL, *Bullion Broker*.

The transactions in gold this week have been numerous, and the price steady at 60*s*., with an inclination on the part of sellers to exact a higher rate. It appears, however, that many sellers hawk the gold about until they fall in with some unscrupulous purchaser, who offers them 3*d*. or 6*d*. per ounce more than the honest dealer; and by a system of optical delusion, combined with a peculiar construction of beam and scales, they in reality get 9*d*. or 1*s*. per ounce less: thus the market gets forced up, and the seller is led to believe that he has got the highest market rate, instead of which he is being cheated with his eyes open.

The purchasers for shipment to Adelaide continue to sustain the present rates, coupled with the purchases for remittances by the merchants and traders here. Very little is being purchased on speculation. From these causes, combined with the arrival of some capitalists from the neighbouring colonies, and a large increase of specie to our banks (about 40,000*l.*), it is to be inferred that the price of gold will not fall below its present rate. The Mount Alexander gold continues still to command the highest rate in the Sydney market.

A sample of the most beautiful gold that has ever appeared in this colony reached Melbourne this week by post, from a new gold field near the Ovens River. It is on Reid's Creek, sixteen miles in length, the bed of which is filled with the auriferous deposit. There is no digging, it is all surface washing, and the gold produced is as fine as the finest gunpowder. A large sample, with more particular information, is promised next post, which, if it arrive, will be duly noticed. The quantity of gold by the escort this week has increased over that of last week by 1,000 oz. Were a branch escort put on from Bendigo Creek to the head commissioner's tent, the weekly amount sent would be 20,000 oz. This statement is made on the authority of one of the most experienced of the gold commissioners. There is a report that such a branch escort is to be put on, and the sooner the better, as the Government are losing a large income from the want of it, by the diggers bringing their gold from Bendigo Creek direct to Melbourne. It is hoped that a repetition of the *Nelson* piracy will be prevented, when her Majesty's 18-gun brig *Phantom*, Captain Guinness, arrives in our bay, which is shortly expected here from Hobart Town.

To prevent any recurrence of such a deed, all that is wanted is to lay the ship containing the gold alongside of the war vessel, and they will be bold pirates that will venture to board.

Number of persons arrived in the Colony this week	1,110
Number of persons who have left....................	488
Addition to our population this week	622

	oz.
The escort brought this week from Mount Alexander..	12,873
Ballarat, including that to Geelong	935
	13,808

	oz.
Gold previously shipped from Victoria..............	537,959
Per *Margaret and Mary*, from Geelong to Sydney....	741*
	538,700

Or 22 tons, 8 cwt. 3 qrs. 16 lbs. 8 oz., which, at 60*s*. per ounce, amounts to 1,616,100*l*.

Exchange on London on drafts against gold hypothecated, 40*s*. per ounce, and ten per cent. discount by all the banks. Freight of gold, 4*d*. per ounce.

EDWARD KHULL, Bullion Broker.

45, *Collins-street, West, April* 10, 1852.

Gold has an upward tendency this week. The market opened at 60*s*. and left off at 60*s*. 3*d*. Recent arrivals from home, and from the neighbouring colonies, of specie, have had the effect of giving it a firm tone: and there is no doubt but that every fresh arrival will bring an additional supply of specie for investment in our mineral treasures. Notwithstanding the large quantity of gold which has arrived by this week's escort, and the quantity that must be in the hands of the diggers, in the banks, and in the treasury, that offered for sale bears but a small proportion to the whole.

Another (the third) arrival of gold from Mount Alexander, exceeding 20,000 oz., reached Melbourne this week, and it is reported that 20,000 oz. were sent to Adelaide by the escort. The produce is likely to increase, soon after the rain sets in, as most of the diggers are at present engaged carting the stuff from the holes to their tents, and there heaping it up until a supply of water enables them to set the cradles to work. The rain which fell this week in Melbourne has started a vast number of diggers to the Mount, to renew their lucrative avocations.

Another glaring case of fraud took place this week by a gold purchaser, as detailed in a letter to the editor of the *Argus*, signed by the two diggers who were to be victimised. The original letter contained the names in full, although left blank by the editor, no doubt from his knowledge of the legal maxim, "that to publish truth is a libel." From the great increase of this new and valuable branch of our products, and the magnitude to which it is likely to extend, it is of the highest importance that the brokers or purchasers should be above the breath of suspicion. As a preventative of such dishonest practices, it might be advisable that the London system be adopted here, viz.:—that a license be granted, and a bond entered into for the faithful discharge of the important duties. This is granted by the mayor and aldermen. It would then be possible to lay hold of and punish the guilty. A set of standard weights would also be of the highest importance, so as to test the weights of the licensed purchasers from time to time.

---

* A large quantity has been taken to Adelaide, which, not having been entered in the Custom House, cannot be ascertained. The quantity deposited at the Assay Office up to March 19, was 15,606 oz., 3,735 only of which have been cleared at the Custom House.

Number of persons arrived in the colony this week..	847
Number of persons who have left................	308
Addition to our population this week	539
	Ounces.
The escort brought this week from Mount Alexander	21,130
Ballarat, including that to Geelong	667
	21,797
	Ounces.
Gold previously shipped from Victoria............	565,661
Per *Derwent* to London	2,685
Per *Vanguard* ditto	17,490
	585,836

Or 24 tons, 8 cwt. 19 lbs. 8 oz., which, at 60*s.* per oz., amounts to 1,757,508*l.*

Exchange on London on drafts against gold hypothecated, 40*s.* per oz. and 10 per cent. discount by all the banks. Freight of gold, 4*d.* per ounce.

EDWARD KHULL, Bullion Broker.

45, *Collins-street*, *West*, 17*th April*, 1852.

CHAPTER XI.

PRACTICAL ADVICE TO EMIGRANTS AS TO THE BEST METHOD OF GETTING TO THE AUSTRALIAN COLONIES.

First steps—Emigration funds—Government emigrants—Family Colonization Society—First and second-class ships—Emigration Companies—Examples of their failure—Safety of the voyage—Best times for sailing—Provisions—Outfit—Luggage—Comparative eligibility of New South Wales and Victoria—.

The capabilities of the gold colonies of Australia have now been faithfully laid before the reader in their industrial as well as in their golden prospects. It has been shewn to him, that not only can he not starve, or be compelled to struggle against difficulty, and almost against hope, as at home; but that with only common prudence he *must* secure independence, and *may* secure a large fortune, with no more struggles than those into which an industrious man, even in the wealthiest ranks of society, voluntarily enters. The greatest struggle of life is to be idle, and no man of common sense would associate independence with such a condition. The emigrant must, of course, work; but in no country on the face of the earth will his labour be more speedily or more abundantly rewarded.

His first step is to obtain accurate information. For this purpose, he can procure the "*Australian Gazette*,"* a newspaper published weekly in London, and devoted exclusively to the interests of the southern colonies. Of this paper it would not become the author to say more, than that it will give him all reliable information, whilst it will never mislead him.

---

* Published by Messrs. Stewart and Murray, Little Green Arbour Court, 15. Old Bailey.

Now for how he should *set about emigrating*, supposing that he has made up his mind to go. This is an important part of the business, as it often undecides him, not knowing what steps to take first, or having taken them, he may become involved in an expenditure of time and means, the latter especially, which would prove a small capital to him if saved for the purposes of his future career as a colonist.

We will first of all suppose him to have little money, as is commonly the case with precisely that class of men which the gold colonies want, and which would succeed best when there, viz., the enterprising, but without opportunity to display their enterprise. These are the men who succeed best in colonies, not those who imagine a shabby-genteel appearance, which is only laughed at, to be one of the first requisites of ambition.

It may not be known to all that in the Australian colonies there is a land fund, which is annually set apart for the purpose of procuring emigration from the mother country. This fund is entrusted to the government at home, and is administered by her Majesty's Land and Emigration Commissioners, who, as is usual with government authorities, contrive to abuse it very much, as will be evident when we tell the reader, on the authority of the Colonial Secretary of State, that upwards of 300,000*l.* of the colonists' money is at present in the Treasury, *unused* for the purpose for which it was sent, but that it remains to be used, and that the government shows symptoms of using it in earnest. It may not be amiss to remark that, when Sir John Pakington let out the interesting secret, he was immediately beset with swarms of Irish and Scotch beggar-landlords, to employ it in clearing off the human rubbish from their own estates, so that they might be the better able to grow cattle for the London and live-stock markets. This he was not likely to listen to, nor did he keep the secret of their modest request. We will now tell the emigrant how he may avail himself of this fund, sent solely for the purpose of procuring healthy emigrants of good character.

Let him write to S. Walcott, Esq., the Secretary of the Government Land and Emigration Commissioners, at No. 9, Park-street, Westminster, and he will, or ought to, receive the terms on which passages are granted to agricultural labourers, shepherds, herdsmen, female domestic and farm servants, under forty-five years of age. All these are required to pay a deposit of *one pound* per head; and they will have to fill up certain papers, which will be forwarded to them, relative to attestations of character, &c. Country mechanics—those of towns having little chance of being accepted—must pay a deposit of 2*l*. per head. Single girls, under eighteen, can not be accepted, unless under the protection of their parents. These sums provide bedding and other necessaries for the voyage, the Government giving the passage free.

And let the emigrant remember, he is under no obligation for this fund. It is not alms, but money sent by the colonists, to provide what is to them the first necessary of life, viz., additional labour. When the emigrant himself becomes a land purchaser in the colony—and it will be his own fault if he do not become one—he will have to contribute to this fund, for the purpose of bringing out other labourers. It has been said, that an emigrant going out by means of this fund is looked down on in the colony: we can assure him, from personal knowledge of the colony, that this is not the case. No man there cares how he comes out, or asks a question about it; the only persons looked down upon are the idle, the dissipated, those who have not brains enough to take advantage of the favourable circumstances around them. These are looked down upon, when they are looked upon at all; but it is very little consideration they get. Sickness is always most hospitably looked after, idleness never. Were a man in poverty in Australia from laziness, he would get plenty of jeers, but not a soul would give him a piece of bread, because it would be known that his condition was deserved, and reliwould be refused on principle. This is the only looking down upon he would ever meet with; and of this, if deserved, he might make pretty certain. Hospitality to well-to-do and industrious people is a characteristic of the Australian colonies, the want of it to the lazy is an equally strong characteristic.

Those with little money may apply to the Family Colonization Society, at 29, Bucklersbury. The advantage to be met with here is that they may pay for their passage by weekly, or other instalments. They get it also cheaper than in ordinary merchant ships, and are equally well fed with those in the Government ships. Those who are ineligible from age or occupation in the latter, may get out by means of the former.

Those who can pay at once for their passage should go to a respectable broker—*never to an agent*—but to the party whose name they see advertised to the ship itself. The agent cannot be, under any circumstances, of the slightest earthly use to them. They will have to pay more for their passage on his account, as the shipbroker gives the agent a commission, which the emigrant's common-sense will tell him is charged to his own pocket in one shape or other. He will be told that all sorts of useless outfit, and other matters, are absolutely necessary, and on this the agent will get a large commission, and the emigrant will have to pay more than the value for his articles, notwithstanding that he will be assured of their wonderful cheapness, the extent of which he will find out when he comes to wear or use them.

He must be equally careful with his shipbroker, who is very apt to fix a day for the ship's departure which is not punctually kept; thus compelling the emigrant to wait in London, at an expenditure and waste of money, which he can ill afford, and which might be turned to good account. There is, no doubt, a legal remedy against this, but the emigrant cannot wait on the chicaneries of the law, and therefore there is no remedy but his own judgment, and this he had better exercise by finding out punctual or unpunctual character of the shipbroker before plies for a passage. This want of punctuality in sailing is not likely to take place to any considerable extent, at present, from the number of emigrants applying for passage, and the scarcity of ships; but it will be as well for the emigrant to use care in all his proceedings. If he do not take care of himself no one else will take care of him.

Let him also be careful in the selection of his ship, and see that it stands A 1 at Lloyd's. This is usually stated in the advertisement. Some ships are employed, which, from their age and condition, are what is termed on the red diphthongs, *i. e.*, they are characterised by the dipthong Œ in red letters. These are safe enough, as far as their holding together is concerned, but if the emigrant have a well-founded horror of vermin of all sorts, from rats and mice to the minor annoyances of the bed and wardrobe, let him keep out of second-class ships, or he may have amusement on the voyage which he did not bargain for. It is impossible to keep these things out of a ship, and the older it is, the more they abound. Plenty of A 1 ships are always on the berth, and if after our warning he sail in any other, he will have no lack of by no means pleasant occupation during the voyage.

Recent circumstances render it necessary to caution intending emigrants against being entrapped by the high-flown pretensions of emigrating companies. The *exposés* which have taken place should of themselves be sufficient to warn all men of common prudence to have nothing whatever to do with them, whether their pretensions be well or ill founded. They are for the most part formed by scheming men, who know nothing of emigration or its requirements. It is indeed remarkable, that those who *are* experienced on the subject never engage in any schemes of the kind, as they know that such matters cannot be carried on by a company, as we will presently show. In giving intending emigrants this advice, we are speaking from experience, for few men have had more to do with practical emigration than the writer of this volume; we never see a name paraded in these emigration schemes without feeling a strong inclination to set down the owner thereof as a fool or a knave.

In most cases, these emigrating companies gild their bait with respectable names, the owners of which are, of course, highly indignant when the exposure comes, and declare that their names were advertised without their knowledge. In some cases this may be so, or there may be but a slender pretence for advertising them. But this is not generally the case, and the parties advertised, though they may have little to do with the affair, nevertheless lend their names, and hope to be paid for so doing.

The process of such associations is as follows. The scheme having been concocted, the next step is to look out for needy respectability—men of known family name, who live in a "Place," "Crescent," or "Villa." An application is made to the parties, setting forth the lucrative nature of the concern, and the absolute necessity which exists for its establishment. This is irresistible, when coupled with the information that they will have a guinea for each attendance at the board, and that the profits of the concern will bring them in at least 500*l*. a year.

Intending emigrants may now judge of the way in which the majority of these associations are got up, and they may take it as a general rule, that when they see high-sounding names at the head of such schemes, the parties so advertised have really contributed their names for the promised advantages. It is all very well for them, when the thing is finally shown up, to disclaim participation in it;—it is their own avarice, coupled with ignorance of business, which has got them into the scrape, from which they find it too late to retreat with credit.

We will now show such of our readers as are not too far gone in gullibility, how it is *impossible* for any such association to succeed, even were the designs and objects perfectly honest. Every ship which sails for Australia carries freight as well as passengers, and this freight is given by merchants to known and responsible parties only, who can be trusted and looked to in case of non-delivery of the goods or other casualty. These emigrating companies have no ships of their own—no shipowner would trust them with one, for he would not know to whom to look for payment—were they to get a ship, no merchant in his senses would ship goods by her, as he would have no one whom he could sue in case of necessity. Hence it becomes necessary in all shipping business that an *established firm* should *alone* be recognised, who can be sued if necessary, and to none other would a merchant trust a single package of freight. The shipowner is equally careful, as he does not receive half the charter money for the hire of his ship till the voyage is completed. The uninitiated reader may hence judge of the pretences of such emigrating associations, which have neither connections, knowledge of shipping business, nor agents in the colonies.

We will make the matter still plainer by an example. The Canterbury Association was composed of some of the highest names in the kingdom, yet shipowners took from them the personal guarantee of the members of the Association; not because the Association was doubted, but because it was necessary to have some individual persons to fall back on in case of dispute. And yet that was a chartered company—what chance would an unchartered one have of getting ships, whatever names they might parade? The Family Colonization Society is under the auspices of some of the leading shipowners of London, and its brokers are men of known respectability: there would be no difficulty there; but it is the height of absurdity in intending emigrants to expect that unknown and inexperienced associations for emigration can have any facilities whatever.

Another proof that emigration can only be carried on successfully by firms is abundant in the history of emigrating companies. The New Zealand Company, the Canterbury Association, the South Australian Company, the Australian Agricultural Company, and others, with every facility for carrying on emigration, have done so, and in every case have lost money by it. The causes of this are so self-evident to all who will consult their common sense, that it would be a waste of time to enter into them. We have said quite enough to guard the intending emigrant in his course; and if, after our warning, his want of perception, or his hankering after cheap passages, mislead him, he deserves little commiseration from any one.

We have, in a former chapter, spoken of the safety of the Australian voyage in comparison with the Transatlantic one. Emigrant ships to the southern colonies are seldom lost, there not being a danger in the way except those of the English and Australian shores; whilst the weather on the latter, and the clearness of the atmosphere, are always sufficient to show the cliffs long before there is any danger of running them down.

The best times for sailing are from the beginning of April to the end of October, though in the Australian voyage it scarcely matters at what time the emigrant sails. The advantage gained by sailing within the above period is, that the passage round the Cape of Good Hope is not boisterous; and at other times of the year ships are often delayed in getting to the latitude in which constant westerly winds are met with. The most expeditious voyages are frequently those in which the ships leave London in the winter months; but the matter is of so little consequence as not to be worthy of further allusion.

Provisions are put on board Australian ships for *six months*, as is water also; but the voyage in a good ship, if the captain knows his business, rarely exceeds *four months*, so that there is no danger of starving by the way. Cabin passengers have their food cooked for them, as at an hotel; it is, however, regulated by a prescribed scale, and every emigrant should demand a printed copy of this scale before paying for a passage. If refused, go at once to another broker. It may be useful in the case of a captain serving out short commons. The writer, in the course of a pretty long experience, has known this done, but rarely. The shipowner would be charged according to the scale, but the emigrant *might*, for obvious reasons, be defrauded. The printed copy of the scale is part of the contract, and it is the emigrant's fault if, having been forewarned, he do not carry away so important a document in his pocket.

To the fore-cabin passengers the provisions are served out on three days a week, according to the daily scale. These cook for themselves, and the general practice for them is to appoint one of their number as a messman for each week in rotation, all, of course, lending a hand when necessary. The messman receives the provisions in a mass, and afterwards distributes them to his class. In all well-regulated ships, no cooking is allowed but at stated times, which, for the sake of good order, are strictly kept. The ship finds the requisite fuel and coppers, but the emigrant should always take care to provide himself with the few domestic utensils which his previous experience will tell him are indispensable, and these should all be made of metal. The following list comprises all that are really requisite :—Can to hold the water, as it is served out; wash-basin, baking-dish, tin pot and plate, teapot, spoon, knife, fork, and an oval pot and tea-kettle for the mess, not for each individual unless he like to take them.

The next difficulty which the emigrant will have to encounter is his outfit; or, as is too often the case, the money wherewith to purchase it. Very little will do; and anything that is clean will do to wear on board a ship; and if the emigrant can muster up enough for the voyage, his chief care is to be able to dress respectably at the end of it. But he must bear in mind that a sufficient supply of linen must be taken to last four months, as there is little chance of washing when on board—fresh water is too valuable there, and he might as well ask for champagne to wash in, as for any water beyond his allowance—he would get the one as soon as the other. The only washing chances are from catching the water in rainy weather, as it drips from the sails.

The least he ought to do with are a dozen shirts, a couple of Guernsey shirts, a dozen pairs of cotton socks, a pair of good fustian trousers, fustian jacket and waistcoat, pea jacket, cloth cap, Sunday-going coat, waistcoat, and trousers, a pair of blankets, three or four pairs of cotton sheets, towels, &c., a couple of pairs of strong shoes, and a pair of light ones. Some of these he no doubt has, as also other little articles that will suggest themselves. He should, however, have all the above, and a good sea-chest to pack them in.

A female going out should not have less than a dozen calico chemises, four petticoats, two flannel ditto, four flannel waistcoats, a dozen pairs of cotton stockings, two pairs of shoes, one pair of boots, three cotton dresses, two bonnets, and requisite articles for the berth as for a man. Soap must also be taken, as well as the ordinary toilet articles.

In purchasing your articles avoid all cheap shops, and also avoid purchasing more than you really want, unless your means are ample. The best outfitters will supply the emigrant with a list of all required for every class, with the prices affixed, and for three or four pounds a sufficient outfit may be got. Even if your means are limited, prefer a short stock of good things to an ample stock of trashy ones.

Luggage is stowed in the hold of the ship, and supplied once a week or fortnight to the fore-cabin passengers. The best kind of package is a good strong trunk, with a smaller for immediate purposes.

Having made all your preparations, do not delay going on board till the last moment, but see that all has been done which requires doing, and then never fear but that a comfortable and prosperous voyage is before you.

Such emigrants as can afford it should take with them a small tent, if their object be to go to the gold mines, but not otherwise. This must be double: a tent in Australia, if composed of single canvass only, is unbearable from the heat. Substantial English-made tools should also be taken, but in limited quantity. As regards anything but these and clothing, which must be according to the means and requirements of the emigrant, he had better not encumber himself with imaginary conveniences, as they will, from the trouble which they will give him, prove serious inconveniences. There is, in fact, nothing which he cannot purchase in Australia as well as in England, and many things which he can purchase more advantageously there than at home.

It will be necessary for the emigrant, before he takes his final step, thoroughly to make up his mind as to which gold locality he will go: to the gold fields of New South Wales or Victoria. Those of the latter colony lie comparatively near Melbourne, whilst the Bathurst mines are at double the distance of those of Victoria. Other New South Wales mines are again nearer to the coast than the Victoria ones. Both are, perhaps, equally productive, notwithstanding that the Victoria mines make the greater show of gold, in consequence of the greater number of hands working at them. The Braidwood diggings are, however, equal to any in Victoria, and those of the Bathurst district are steady in their yield. Each colony has a disadvantage of an opposite character. The Victoria mines are difficult to be worked from want of water, and this renders the by no means choice spirits who are standing still from that cause very undesirable companions. The Van Diemen's Land portion of them in particular, if not profitably engaged in digging gold, will most certainly steal it from those who have it, and this is found practically to be the case. On the other hand, the Turon mines of New South Wales are too frequently standing comparatively still from too much abundance of water, the valleys among the Blue Mountains being during a portion of the year liable to heavy floods, sweeping not only over the gold mines, but the miners also, some of whom have been drowned. The floods of New South Wales are as extraordinary as is the rest of the country. In a few hours an unexpected flood will deluge a mountain valley, and in a few hours more retire from the wreck it has made. At the best localities in New South Wales floods do not cause the impediments they now do in the earlier discovered mines, being nearer to the coast, and having a better outlet for the sudden influx of water.

THE END.

London:
Printed by STEWART and MURRAY,
Old Bailey.

BOOKS FOR THE COUNTRY,

In Foolscap 8vo, Fancy Cloth Covers, with numerous Illustrations,

PRICE ONE SHILLING EACH

(UNLESS SPECIFIED).

CONTENTS OF THE SERIES:—

1. ANGLING, and WHERE to GO. By ROBERT BLAKEY.

2. PIGEONS and RABBITS. By E. S. DELAMER.

3. SHOOTING. By ROBERT BLAKEY.

4. SHEEP. By W. C. L. MARTIN.

5. FLAX and HEMP, its Culture and Manipulation. By E. S. DELAMER, with numerous Illustrations.

6. THE POULTRY YARD. By E. WATTS (of Monkbarns).

7. THE PIG; how to Choose, Breed, Feed, Cut-up, and Cure. By S. SIDNEY.

8. CATTLE; their History and Various Breeds; Management, Treatment, and Diseases. By W. C. L. MARTIN, and W. H. RAYNBIRD.

10. THE HORSE; its History, Management, and Treatment. By YOUATT and CECIL.

11. BEES; their Habits, Management, and Treatment. By the Rev. J. G. WOOD, Author of "Natural History."

12. CAGE and SINGING BIRDS. By H. G. ADAMS.

13. SMALL FARMS; a Practical Treatise on their Management. By MARTIN DOYLE.

14. THE KITCHEN GARDEN. By E. S. DELAMER.

15. THE FLOWER GARDEN. By E. S. DELAMER.

16. RURAL ECONOMY; a Treasury of Information on the Horse, Pony, Mule, Ass, Cowkeeping Sheep, Pigs, Goat, Honey-bee, Poultry, &c. By MARTIN DOYLE.

17. FARM and GARDEN PRODUCE; a Treasury of Information upon the Principal Farm and Garden Plants; to which is added, a Cottage Gardener's Calendar. By MARTIN DOYLE.

18. COMMON OBJECTS of the SEA-SHORE. By the Rev. J. G. WOOD. With many Illustrations by W. SOWERBY.

19. COMMON OBJECTS of the COUNTRY. By the Rev. J. G. WOOD. With many Illustrations by COLEMAN.

20. AGRICULTURAL CHEMISTRY (1*s.* 6*d.*). By ALFRED SIBSON, with a Preface by Dr. Voelcker, comprising—Chemistry of the Atmosphere—The Soils, Water, and the Plant—Grain Crops—Root Crops—Leguminous Crops—Fodder Crops—Soils and Manures best suited for them—Vegetable Produce of the Farm—Means of Restoring the Impaired Fertility of Land exhausted by the Growth of Cultivated Crops—Improving Land naturally Infertile—Annual Produce of the Farm—Principles of Nutrition, &c., &c.

London: ROUTLEDGE, WARNES, AND ROUTLEDGE.

	s.	d.
Walsh's Manual of Domestic Economy. With 200 Illustrations, 1 Vol., 700 pp., half-bound	10	6
Walsh's Manual of Domestic Medicine and Surgery. With 200 Plain and Coloured Illustrations, 1 Vol. thick fcap. 8vo, 700 pp., half-bound	10	6
How we are Governed. A Hand-Book of the Constitution, Government, Laws, and Power of Great Britain. By ALBANY FONBLANQUE, Jun., Esq. Fcap. 8vo, cloth	2	6
Walsh's English Cookery Book. With Practical Illustrations. Fcap. 8vo, half-bound "A plain, common-sense Cookery Book."—*The Athenæum.*	3	6
Pierce's Household Manager; A Practical Treatise upon the various Duties of Maître d'Hôtel in large Establishments. Fcap. 8vo, cloth extra	3	6
Sleigh's Handy Book of Criminal Law, Applicable to Commercial Transactions. Post 8vo, cloth extra	2	6
Simmond's (P.L.) Dictionary of Trade Products, Commercial, Manufacturing, and Technical Terms, with Moneys, Weights and Measures of all Countries, reduced to the British Standard. Fcap. 8vo, half-bound	6	0
Dodd's Novelties, Inventions, and Curiosities in Arts and Manufactures. Fcap. 8vo, cloth	2	0
Walsh's Economical Housekeeper. With numerous Practical Illustrations. Fcap. 8vo, in large type	3	6
Dodd's Curiosities of Industry; Or, the Applied Sciences. Demy 8vo, cloth limp	3	0
Routledge's American Hand-Book; Or, Tourist's Guide through the United States, with a large Map. Fcap. 8vo, cloth	2	0
James's Treasury of Medicine; Or, Every One's Medical Guide. Fcap. 8vo, cloth	5	0

ROUTLEDGE'S USEFUL BOOKS.

	s.	d.
How to Farm Profitably; Or, the Sayings and Doings of Mr. Alderman Mechi, with Illustrations. Fcap. 8vo, boards, 2s.; or half-bound	2	6
Rundell's (Mrs.) Domestic Cookery. For the Use of Private Families. With Ten Illustrations, fcap. 8vo, cloth	2	0
Chevreul on the Laws of Contrast of Colour, And their Applications to the Fine Arts of Painting, Decorating, Mosaic Work, Calico Printing, &c., &c. Illustrated with Woodcuts, fcap. 8vo, cloth	2	0
Also, in the Press (to be speedily issued), A REVISED EDITION OF THE ABOVE, with the addition of Sixteen Plates printed in Colours.		
Master's Ready Reckoner. By JOHN HEATON. The Ninth Edition, with additional Tables, royal 18mo, cloth	1	0
Routledge's Hand-Books. With Illustrations, boards, viz.:— GYMNASTICS. By GEORGE FORREST. SWIMMING and SKATING. By GEORGE FORREST. HERALDRY; or, Accidence of Armorie. CHESS—and the best mode of Playing. WHIST—with Rules for Playing the Game.	Price Sixpence each.	
Tradesman's Ready Calculator, For Masons, Plasterers, Glaziers, Painters, &c. Royal 32mo, cloth	0	6
Visible Multiplication Table, With the Tables printed in Colours, with a cloth cover	0	6
Ready Reckoner (Miniature Edition). With additional Tables, royal 32mo, cloth	0	6
Earth (The), Past, Present, and Future. By the Rev. Geo. H. SUMNER, M.A., fcap. 8vo, sewed	0	6
Hoare's Wine and Spirit Merchant's Guide. Fcap. 8vo, sewed, wrapper	0	6
Hoare's (Rev. G. T.) Village Museum; Or, How we Gathered Profit with Pleasure. Fcap. 8vo, sew	0	6

London: ROUTLEDGE, WARNES, AND ROUTLEDGE.

Bancroft's History of America.—The Colonisation.

In 2 vols., fcap. 8vo., boards, 4s.; or, in cloth, 5s.,

BANCROFT'S HISTORY OF AMERICA,

THE COLONISATION AND ITS RESULTS,

THE TENTH THOUSAND. With a very complete INDEX.

*** This standard work has, in the five volumes, more than 6,000 refere to the best Historical Works and Manuscripts in existence. It takes its sta in literature by the side of Alison's "Europe," and Macaulay's "England." I style is lofty and eloquent, written with candour, neither exaggerating vice character, nor reviving national animosities, but rendering a just tribute virtue, wherever found.

Bancroft's History of America.—New Volumes.

In fcap. 8vo., boards, 2s.; or, cloth, 2s. 6d. each,

BANCROFT'S HISTORY OF AMERICA,

Volumes 3, 4, and 5, with a full INDEX,

Continuing the History from its Colonisation, and completing a period History of the American Revolution.

This cheap edition of Mr. Bancroft's standard work is now complete, as he has written it, and contains the History of the American Revolu considered in all its causes—the rise of the Union of the United States from body of the people—the change in the colonial policy of France—and consequences of the endeavours of Great Britain to consolidate her power America.

PRESCOTT'S HISTORICAL WORKS,

CHEAP COMPLETE EDITION,

Each in 2 vols., boards, 4s.; or, in cloth, 5s.,

PRESCOTT'S (W. H.) FERDINAND AND ISABELLA. 2 vols.
PRESCOTT'S (W. H.) CONQUEST OF MEXICO. 2 vols.
PRESCOTT'S (W. H.) CONQUEST OF PERU. 2 vols.
PRESCOTT'S (W. H.) PHILIP THE SECOND. 2 vols.

*** This issue of Mr. Prescott's Historical Works is the only cheap that contains, without the slightest abridgement, all the Notes of the orig octavo American editions.

"To Mr. Prescott belongs and rare distinction of uniting solid merit with exte popularity. He has been exalted to the first class of historians—both by the pop voice and the suffrages of the learned. His fame, also, is not merely local, or e national—it is as great in London, Paris, and Berlin, as at Boston, or New York. works have been translated into Spanish, German, French, and Italian; and whatever region they have penetrated, they have met a cordial welcome, and done n to raise the character of American letters and scholarship."—*Whipple's Essay*.

"Prescott's works, in point of style, rank with the ablest English historians, paragraphs may be found in which the grace and elegance of Addison are combined Robertson's cadence, and Gibbon's brilliancy."—*Athenæum*.

Uniform with Prescott's Historical Works, in 1 Vol. fcap. 8vo. boards, 2s.; or, in cloth, 2s. 6d.,

PRESCOTT'S (W. H.)

ESSAYS, BIOGRAPHICAL AND CRITICA

LONDON:—GEORGE ROUTLEDGE & CO. FARRINGDON STRE

SEP 25 1940